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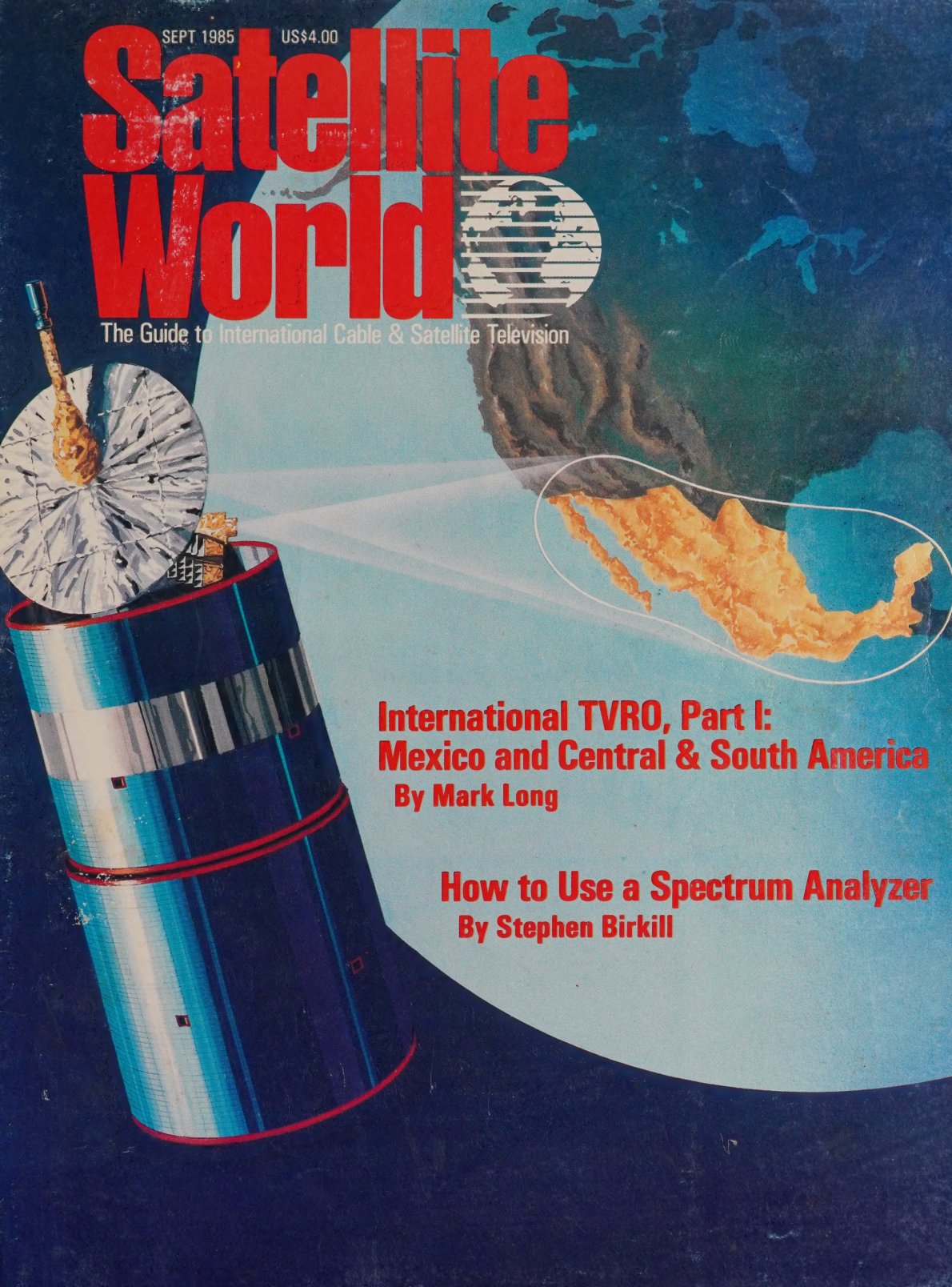
Satellite World

The Guide to International Cable & Satellite Television



International TVRO, Part I: Mexico and Central & South America

By Mark Long

How to Use a Spectrum Analyzer

By Stephen Birkill

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About the Cover: *Morelos F1 at 113.5 degrees west is now transmitting four channels of programming and will be joined by Morelos F2 later this year to complete the Mexican satellite system. See related stories on pages 5 and 12. Cover illustration courtesy Hughes Aircraft.*

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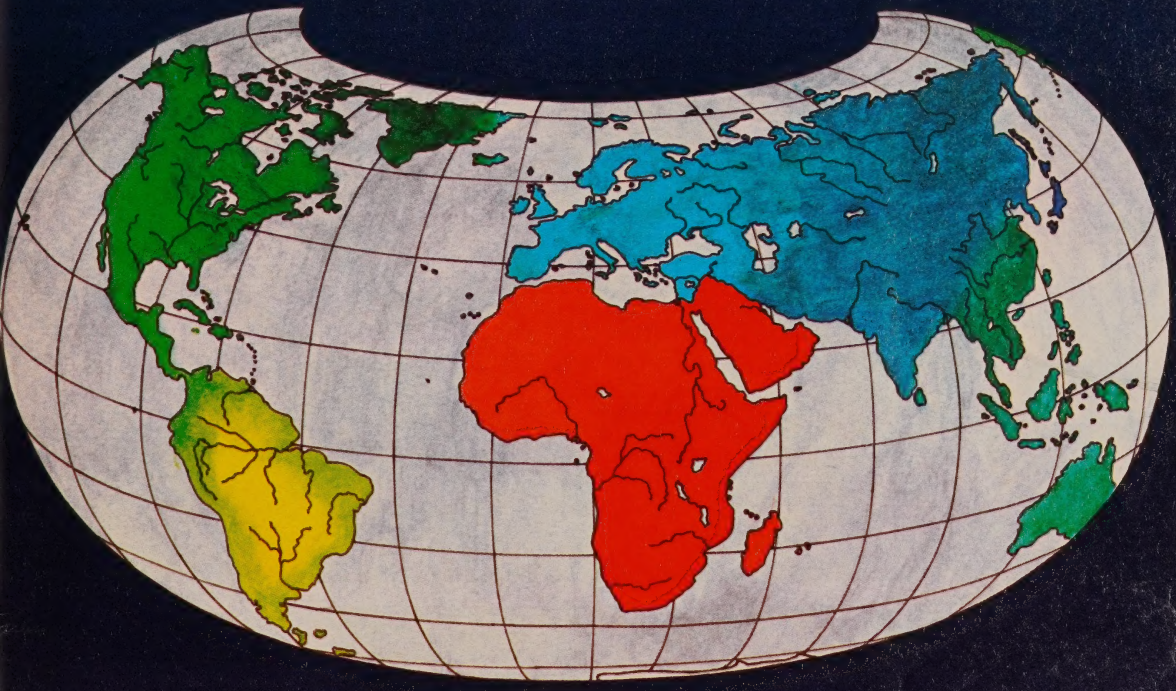

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C-band Margin-above-threshold Chart for 4-, 5-, 6-, 7.5- and 10-Meter Aperture Antenna Earth Stations

ANTENNA SIZE	13 FEET			16 FEET			20 FEET			25 FEET			33 FEET		
LNA N.T.	120°	90°	60°	120°	90°	60°	120°	90°	60°	120°	90°	60°	120°	90°	60°
EIRP LEVEL															
34 dBW	+2.4	+3.4	+4.7	+4.9	+5.9	+7.2	+6.9	+7.9	+9.2	+8.8	+9.8	+11.8	+11.2	+12.2	+13.5
33 dBW	+1.4	+2.4	+3.7	+3.9	+4.9	+6.2	+5.9	+6.9	+8.2	+7.8	+8.8	+10.1	+10.2	+11.2	+12.5
32 dBW	+0.4	+1.4	+2.7	+2.9	+3.9	+5.2	+4.9	+5.9	+7.2	+6.8	+7.8	+ 9.1	+ 9.2	+10.2	+11.5
31 dBW	−0.6	+0.4	+1.7	+1.9	+2.9	+4.2	+3.9	+4.9	+6.2	+5.8	+6.8	+ 8.1	+ 8.2	+ 9.2	+10.5
30 dBW	−1.6	−0.4	+0.7	+0.9	+1.9	+3.2	+2.9	+3.9	+5.2	+4.8	+5.8	+ 7.1	+ 7.2	+ 8.2	+ 9.5
29 dBW	−2.6	−1.4	−0.3	−0.1	+0.9	+2.2	+1.9	+2.9	+4.2	+3.8	+4.8	+ 6.1	+ 6.2	+ 7.2	+ 8.5
28 dBW	−3.6	−2.4	−1.3	−1.1	−0.1	+1.2	+0.9	+1.9	+3.2	+2.8	+3.8	+ 5.1	+ 5.2	+ 6.2	+ 7.5
27 dBW	−4.6	−3.4	−2.3	−2.1	−1.1	+0.2	−0.1	+0.9	+2.2	+1.8	+2.8	+ 4.1	+ 4.2	+ 5.2	+ 6.5
26 dBW	−5.6	−4.4	−3.3	−3.1	−2.1	−0.8	−1.1	−0.1	+1.2	+0.8	+1.8	+ 3.1	+ 3.2	+ 4.2	+ 5.5
25 dBW	−6.6	−5.4	−4.3	−4.1	−3.1	−1.8	−2.1	−1.1	+0.2	−0.2	+0.8	+ 2.1	+ 2.2	+ 3.2	+ 4.5
24 dBW	−7.6	−6.4	−5.3	−5.1	−4.1	−2.8	−3.1	−2.1	−0.8	−1.2	−0.2	+ 1.1	+ 1.2	+ 2.2	+ 3.5
23 dBW		−7.4	−6.3	−6.1	−5.1	−3.8	−4.1	−3.1	−1.8	−2.2	−1.2	+ 0.1	+ 0.2	+ 1.2	+ 2.5
22 dBW			−7.3	−7.1	−6.1	−4.8	−5.1	−4.1	−2.8	−3.2	−2.2	− 0.9	− 0.8	+ 0.2	+ 1.5
21 dBW					−7.1	−5.8	−6.1	−5.1	−3.8	−4.2	−3.2	− 1.9	− 1.8	− 0.8	+ 0.5
20 dBW						−6.8	−7.1	−6.1	−4.8	−5.2	−4.2	− 2.9	− 2.8	− 1.8	− 0.5
19 dBW								−7.1	−5.8	−6.2	−5.2	− 3.9	− 3.8	− 2.8	− 1.5
18 dBW									−6.8	−7.2	−6.2	− 4.9	− 4.8	− 3.8	− 2.5
17 dBW											−7.2	− 5.9	− 5.8	− 4.8	− 3.5

International Satellite Frequency Chart

WH = Western Hemisphere EH = Eastern Hemisphere WZ = Western Zone EZ = Eastern Zone

U.S. Domestic		Intelsat IV & IVA		Intelsat V			Gorizont/Raduga	
Tr. #	Frequency	Tr. #	Frequency	Tr. #	Beam	Frequency	Tr. #	Frequency
							6 [-1]	3675
1	3720	1 [1]	3725				8 [1]	3725
2	3740			11 [1-3] 21 [1-3] 41 [1-3]	WH EH WZ	3742.5		
				51 [1-3]	EZ			
3	3760	2 [3]	3765					
4	3780						8 [4]	3775
5	3800	3 [5]	3805					
6	3820			12 [5-7] 22 [5-7]	WH EH	3825	9 [6]	3825
7	3840	4 [7]	3845	42 [5-7] 52 [5-7]	WZ EZ			
8	3860							
9	3880	5 [9]	3885				10 [9]	3875
10	3900			13 [9-11] 23 [9-11] 43 [9-11] 53 [9-11]	WH EH WZ EZ	3905		
11	3920	6 [11]	3925				11 [11]	3925
12	3940							
13	3960							
14	3980	7 [14]	3975					
15	4000			14 [14-16] 24 [14-16] 34 [14-16] 44 [14-16] 54 [14-16]	WH EH G WZ EZ	3995		
16	4020	8 [16]	4015					
17	4040							
18	4060	9 [18]	4055	15 [18] 25 [18] 35 [18]	WH EH G	4055		
19	4080							
20	4100	10 [20]	4095	36 [20]	G	4095		
21	4120							
22	4140	11 [22]	4135	37 [22]	G	4135		
23	4160							
24	4180	12 [24]	4175	38 [24]	G	4177.5		

More About Morelos

Mexico has its signals crossed.

As we all know, satellite signals recognize no national borders, and it also is no secret that the Mexican government tailored the signal coverage area of Morelos to include Hispanic population centers in the United States—specifically Los Angeles, portions of the Southwest, and Miami. Since the original plan called for Morelos to distribute its video signals on Ku-band, this seemed like a feasible plan. Four-foot dishes would be within the financial means of many Americans, and would more easily conform to U.S. zoning ordinances. However, one informed source told *Satellite World* that the Mexican government never really intended to use Ku-band at all, but was merely protecting its DBS position at 113.5 degrees west by pretending it would inaugurate a 12-GHz service.

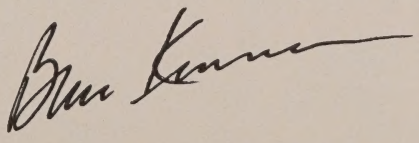
So Morelos is now transmitting three Mexican services and the San Diego CBS affiliate on C-band using 7-watt narrowband transponders. We used a spectrum analyzer at the *Satellite World* headquarters in Boise, Idaho, to measure the power levels of these transponders in comparison with corresponding channels on Galaxy 1 and found that a six-foot (1.8m) dish will probably deliver adequate performance in most of the intended beam-center coverage area for transponders 12 and 14. The performance of transponders 22 and 24 was marginal at press time.

Tr.	Pol.	Center Frequency	Power Level in Comparison with G1	Estimated Beam-center EIRP	Service
12	V	3948.75 MHz	-3 dB	35	XEW-TV
14	V	3988.75 MHz	-3 dB	35	XHITM-TV
22	V	4148.75 MHz	-6 dB	32	XHDF-TV
24	V	4188.75 MHz	-7 dB	31	XETV

These figures are accurate for Boise, Idaho, but may vary by as much as 3 dB in other regions of the United States, depending upon the individual characteristics of the transponder in question. In mid-Florida, for example, transponder 22 appears to be only 4 dB below the corresponding channel on Galaxy 1.

The power levels of Morelos are nothing to cheer about, but to further complicate matters, the center frequencies of the Mexican transponders were offset approximately 10 MHz from American satellite center frequencies at press time. This is bad news for owners, dealers, and manufacturers of frequency-synthesized receivers that have no fine-tune adjustments.

As Stephen Birkill notes in his article on page 20 of this issue, engineers "can do anything at the uplink." One thing the engineers should do is to conform with American center frequencies. Advertiser-supported Mexican services that wish to address the Hispanic market in the United States would no doubt prefer that as many TVRO receivers as possible are compatible with their transmissions.



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To the Editor

A Note from Music Box

Thank you, Mark Long, for your lucidly argued editorial in the July 1985 issue of *Satellite World*. The U.K. cable industry has certainly learned a lot in the last 18 months; the two channels with European penetration, Sky and ourselves, can certainly feel happy that we pitched our services at those 8 million cabled homes across the channel and not just at the home market.

May I point out one major omission in your references to encryption?

You mention several channels that persuaded Eutelsat to lift encryption, but you forgot the most imporent player, Music Box. Remember that we have been in the clear, unencrypted, since the start of our satellite-carried service on July 12, 1984. We were the only channel in the clear at that time. It was pressure from ourselves on Eutelsat that lead to the lifting of the obligation to encrypt on January 1, 1985.

Not only did we want to be unencrypted to avoid headend equipment and to be able to be in stereo audio from the start, which we were, but note also that our rights-aquisition philosophy lends itself perfectly to the unregistered reception of Music Box, except in public places like nightclubs. We are the only music TV service in the world to have negotiated with the rights-holders of the video clips that form the bulk of our programming, a deal by which we pay a percentage of out total revenue. Therefore, the more people that see Music Box in their homes, the more publicity income we generate (research picks them up), and the more income the rights-holders receive. Everyone's happy.

I would certainly agree with your inference that the national PTTs [telecommunications authorities] are not far from accepting the principle of unencrypted transmissions. As a government-run channel, TV-5, is now in the clear it's difficult to see how Eutelsat could enforce encryption again. Point-to-point distribution has led to SMATV, which isn't very different from mini-DBS, the dishes being as performant as they are. Ask the King of Morocco whose Palaces of Fez and Casablanca are wired for Music Box with 4.2-meter Teleste dishes!

Marcus Bicknell
Director of Sales & Marketing
The Music Channel Ltd.

SMATV in Spain

I read with great interest the article about the Anderson Scientific SMATV system ["Economical Shared Satellite Systems," *Satellite World,* April 1985]. Unfortunately, it is not clear from the text if all participants in an Anderson system have to view the same channel, or if individuals can view different channels at the same time.

We are urgently seeking SMATV equipment and terrestrial links for up to 10 kilometers to supply TV programming from Intelsat V F4 and Eutelsat I-F1 to British and German communities in Alicante and Valencia provinces along the eastern coast. We are also finding it difficult to locate a European supplier of 4-meter mesh dishes or alternative construction information. We would be grateful if you can make any suggestions. The two principal Spanish manufacturers say they could supply one 4-meter prototype dish in four or five months and that it would weigh more than 1,500 pounds!

E.C. Romaine-Evans
Javelec Industrias Electronicas de Javea
Javea, Spain

Editor's Note: *The multiple-receiver systems described in the Anderson article use block downconverted signals from a single LNB. Each receiver can tune to the available horizontally or vertically polarized signals on the satellite the system's dish is aimed at—but not to both polarities at the same time. A modulator, combiner, and splitter UHF rebroadcast system, or a trunk-driver/subscriber-tap cable system such as the ones described in the May 1985* Satellite World *can combine signals of opposite polarity and from different satellites to deliver an expanded mix of channels to end users.*

Each SMATV system would need a separate dish equipped with a dual low noise block downconvertor (LNB) feedhorn (an LNB for each each set of oppositely polarized signals) for every multiple-service satellite accessed at the same time. We would recommend solid 4-meter (13-foot) spun-aluminum dishes for your Ku-band SMATV applications; you would need a larger Ku-band compatible mesh dish to obtain cable-quality signals in your area. For more information about Ku-band dishes and SMATV hardware, contact: NEC Business Systems (Europe) Ltd., 35 Oval Rd., London NMI 7EA, England. Telephone 01 267 7000; or Anderson Scientific, 2693 Commerce Rd., Rapid City, SD 57702, U.S.A. Telephone (605) 341-3781.

Intelsat V F4, as you know, replaced Intelsat V F2 at 34.5 degrees west and is now transmitting the two Spanish C-band feeds. You would need a 10-meter (33 foot) mesh dish and a 60-degrees Kelvin low noise amplifier (LNA) to recieve the half-transponder 18-dBW beam-edge effective isotropic radiated power (EIRP) east zone TVE-1 signal. You would need an even larger dish to receive the half-transponder 15-dBW beam-edge EIRP TVE-2 east hemi signal.

U.S.-based Cable News Network (CNN) and the United States Information Agency's (USIA) WorldNet service, both English-language programmers, have talked to the Arab Satellite Communications Organization (Arabsat) about leasing transponders. If and when Arabsat I-F1 and F2 are operational—there are problems with both (see "World Watch," this issue)—you would need a 4-meter antenna to access their C-band TV signals.

Please note that the Arabsats use a unique 25-channel C-band transponder scheme that requires a receiver that can be field-tuned to the correct carrier frequencies (see the 1985 World Satellite Almanac*), or an agile receiver that can be continuously tuned across the C-band spectrum. A U.S.-standard receiver factory-tuned to a 24-transponder channellization scheme will not work properly because of cross-channel interference.*

Comments on the editorial content of Satellite World *should be adressed to: Letters to the Editor,* Satellite World, *P.O. Box 29, Boise, Idaho 83707, U.S.A. Unless otherwise stipulated, any such submission constitutes agreement to publication in this column, with such editing as is deemed necessary for reasons of brevity and clarity.*

By Jonathan Miller
Washington, D.C.

Taking Stock

IBM will trade SBS for a share in MCI; and a response to Intelsat's Mr. Hampton.

According to the popular reaction to IBM's closure of Satellite Business Systems (SBS) in return for a minority stake in MCI, the men from IBM headquarters in Armonk, New York, are the most brilliant business tacticians in history.

The commonly accepted analysis holds that IBM has cunningly positioned itself directly against AT&T, setting the stage for a shootout at the telephony corral. Enthusiastic Wall Street analysts have almost unanimously predicted that the move presages an effort by IBM to take over MCI in its entirety.

Well, maybe. But there's another school of opinion. Some say IBM, after 10 years of effort to make SBS into a viable competitor of AT&T, has proven a dismal failure in the telecommunications business. SBS had consistently misread the market, pouring more than $1 billion into a satellite system well suited for high-speed data communications (a tiny market) but ill-engineered for plain old telephone service (a huge one).

After Comsat sold its stake in SBS to IBM last year for $50 million (ending up with an after-tax loss of $100 million on its investment), IBM found itself with 60 percent of SBS. The remainder was owned, reluctantly, by Aetna Life and Casualty Company. The IBM men sent to McLean, Virginia, to repair SBS found a company burdened with debt, sharing almost half its revenues with AT&T (the only way SBS could complete most of its calls was by reselling AT&T lines). It hadn't invested enough in point-to-point microwaves and fiber optics, and too much was invested in satellites.

What to do? IBM chose a bold move. It is simply giving away SBS to MCI in return for a 16-percent stake in MCI—payable in a new issue of MCI stock. Better yet for MCI, IBM is transferring SBS free of debt; IBM will pay off the $400 million that SBS still owes the banks, and pay off Aetna for its share

MCI has extracted further concessions. IBM has promised to invest up to $400 million more in MCI, giving it up to a 30-percent stake, but not to seek full control of MCI without permission from its chairman, Mr. William McGowan. While IBM could make an offer sweet enough to persuade Mr. McGowan to sell the store, whether or not IBM actually is prepared to make such an offer is far from clear. After IBM took over the California digital-switch maker, Rolm, profits plunged. The white-shirt, uptight IBM culture didn't mix with the laid-back Jacuzzi-soaking style of Rolm's men and women. The lesson for IBM is: leave MCI alone, hope the investment works out, and look forward to collecting dividends.

The man who emerges as a positive wizard in all of this is Mr. McGowan of MCI. He's gained credibility for himself as a businessman capable of playing in the first team, and for his company as an enterprise sure to be around for the long haul. He's won access to capital on preferential terms, and he's picked up 200,000 long distance customers, accounting for about 1 percent of all American long distance traffic.

The other big winner, ironically, may be AT&T. The perception that IBM now is firmly pitted against AT&T in the long-distance business ought to help AT&T wrest further deregulation from the U.S. Federal Communications Commission (FCC) and the courts. The spectre of IBM is also likely to put a healthy scare into the somnambulant ranks of AT&T's middle-rank managers. As for AT&T's chieftains, they now have to consider countering IBM's move by buying up a computer company. Given the recently dismal performance of most computer companies, now is the time to pick one up, cheap.

But a more fundamental question presents itself: is it even wise for AT&T and IBM to invade each other's turf? Given IBM's poor record in telecommunications, and AT&T's so-far anaemic showing in computers, it may be time to reassess the conventional wisdom that holds that—given the blurring of distinction between data processing and telecommunications—telecommunicators must compute, and vice versa.

A battle between AT&T and IBM may well harm both. Perhaps they should find ways to draw spheres of influence, cooperate on standards, and stick to what they know best. Such a strategy may be sensible, but it would require corporate diplomacy of a high order. This is improbable in a game in which corporate machismo is playing a larger role than many executives would like to acknowledge.

Fighting Intelsat

The letter to the editor from Intelsat's John Hampton (*Satellite World,* July 1985) is replete with the myth, misquotation, and misinformation that has recently characterized so much of the information leaving that organization. I fear it would try the patience of readers to rebut it in detail.

But, for the sake of the record, I feel compelled to respond to Mr. Hamp-

ton's central point: that the article constituted "unwarranted personal denigration" of those who do not agree with me.

Mr. Hampton apparently cannot tell the difference between denigration and criticism. In the article, I criticized Mr. Hampton's boss, Richard Colino, whom I described as "likeable but overly combative." I said that Mr. Colino's strident criticism of the Reagan Administration has contributed to a growing politicization of Intelsat, and noted that "some assert he is given to indiscretions."

Mr. Hampton appears to believe that these comments constitute a "personal attack on a fine American." I believe the article represented a fair comment on the performance of a public person.

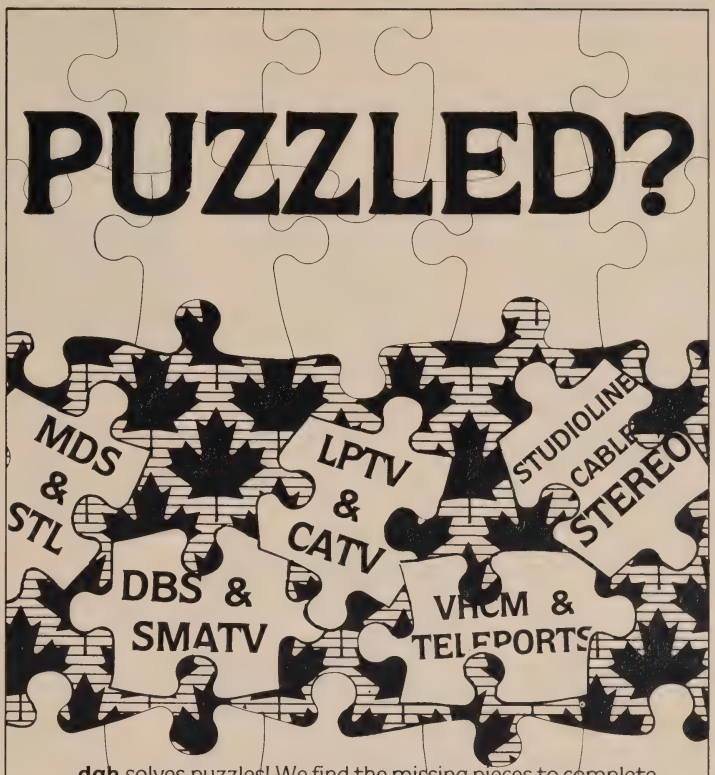
Mr. Hampton attacks my "preposterous assertion that [Mr. Colino's] defense of Intelsat constitutes anti-Americanism." Mr. Hampton misrepresents my point.

There *was* an accusation in my article that Intelsat has been responsible for spreading "anti-Americanism" around the world. But Mr. Hampton chooses to ignore my careful attribution of this allegation to its source: the chairman of the FCC, Mr. Mark Fowler.

Later in the article, I twice refer to Mr. Colino's attacks on the Reagan Administration. There is certainly nothing unpatriotic about attacking the Reagan Administration, and a lack of patriotism is not why I question the tactic. If Mr. Hampton will read the article again, he will see that I made a quite different point: that in practical terms, Mr. Colino may be politicising Intelsat. If he is, this "will only divide Intelsat and eventually endanger an organization that deserves the thanks of the world for its brilliant 20-year record of bringing communications by satellite to every corner of the globe."

I trust that in the light of these facts readers will see Mr. Hampton's attack on my August 1985 column as nothing more than an effort to divert attention from the legitimate criticism of management at Intelsat which is threatening to do more harm to the organization than anything I may write.

Jonathan Miller is the editorial director of Satellite Week *and the* Space Commerce Bulletin, *published in Washington, D.C.*



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NEWS

FilmNet/ATN, the subscriber-supported movie channel based in Brussels, Belgium, will be carried on Amsterdam's 320,000-subscriber cable system starting September 1, 1985. The cable system, which began marketing set-top decoders last month, will scramble FilmNet/ATN's in-the-clear feed (Eutelsat I-F1, transponder 9) at its headend. Out of the 400,000 homes passed by the five Dutch cable systems that now carry the service, some 20,000 now subscribe to FilmNet/ATN. The service is not carried on Belgium's cable systems, the largest single cable market in Europe, because the government is still evaluating the impact of pay-TV services. New media legislation is also pending in Norway and Denmark. The Swedish parliament passed a cable bill in June 1985; Sweden's Esselte FilmNet Ab will begin marketing in cable test-areas later this year.

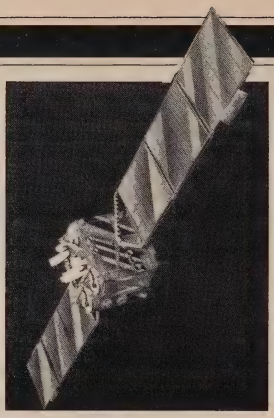
A provisional European Telecommunications Satellite Organization (Eutelsat) was established in 1977. According to an international Convention and Operating Agreement unanimously ratified by 25 member states—all of Western Europe, and Yugoslavia—Interim Eutelsat will be granted intergovernmental status this month. The "definitive" Eutelsat will be steered by three groups after it is restructured:

- *The Assembly of Parties,* comprising representatives of the member states, will meet every two years (except in the case of extraordinary situations) to formulate general policies.
- *The Board of Signatories,* the main Eutelsat body comprising representatives of the national telecommunications entities of the member states, will be responsible for the development, procurement, establishment, and operation of the satellite system. It will also approve and audit the budget, and establish and verify the conditions for user access. The first Board of Signatories meeting is scheduled to take place later this month.
- *The Executive Organ,* led by a Director General appointed by the Board of Signatories, will be responsible for implementing the organization's policies.

Eutelsat will still be headquartered in Paris, the Interim staff of 150 will be transferred to the new organization, and Andrea Caruso will continue as director general if the interim spirit of cooperation prevails. Eutelsat has worked with the European Space Agency (ESA) on the Orbital Test Satellite (OTS) program, and launched two Ku-band satellites: Eutelsat I-F1 at 13 degrees east, operational in October 1983, and Eutelsat I-F2 at 7 degrees east, operational in October 1984. European postal, telephone, and telegraph authorities (PTTs) can use or lease Eutelsat television, telephony, and data transmission capacity. Eutelsat also collaborates with the European Broadcast Union (EBU) on the Eurovision cable feed (Eutelsat I-F2, transponders 3 and 9). Satellite Multi-Service System's digital feeds use Eutelsat and Telecom capacity.

The People's Republic of China has notified RCA Astro-Electronics of the United States, Matra of France, and Messerschmitt-Bolkow-Blohm (MBB) that the authority for communications satellite procurement has been moved from a department of the PRC's broadcast ministry to the PRC's State Council. The State Council has already moved operational responsibilities for the proposed Chinasat system to the Ministry of Science & Technology. RCA, Matra, and MBB have invested U.S.$1 million in the quest for the two high-power Ku-band direct broadcast satellite contracts. The U.S. Communications Satellite Corp. (Comsat), which is still trying to unload its two medium-power Satellite TV Corp. (STC) direct broadcast satellites, has reportedly been acting as an advisor to the PRC.

Eutelsat's third satellite and GTE's Spacenet 3 are scheduled for a mid-September launch aboard Arianespace flight number 15. British Aerospace was the prime contractor for the three-axis stabilized 20-watt transponder Eutelsat I-F3. The 14-transponder Ku-band satellite which will be stationed at 10 degrees east will have an operational life expectancy of seven years. The European Telecommunications Satellite Organization (Eutelsat) plans to use transponders 3 and 9 on I-F3 for European Broadcasting Union (EBU) unilaterals; transponders 1 and 7 will be held in reserve. Four transponders—4, 6, 10, and 12—could be used for cable or occasional video feeds. Transponders 2, 5, 8, and 11 will be used for time division multiple access (TDMA) telephony. Transponders 13 and 14 will be used for 120 Mb/s TDMA/quadrature phase shift keying (QPSK) business and governmental transmissions.



Eutelsat I-F3 has 14 transponders.

The spin-stabilized 24-transponder Spacenet 3 built by RCA Astro Electronics is equipped with six 72-MHz wide Ku-band transponders; 19, 21, and 23 are western U.S. spot beams; 20, 22, and 24 are eastern U.S. spot beams. The six 72-MHz wide C-band transponders and twelve 36-MHz wide C-band transponders will deliver full-CONUS (continental United States) coverage to the 48 contiguous states and Puerto Rico. The 72-MHz wide transponders use Hughes-build 16-watt travelling wave tube amplifiers (TWTAs); the 36-MHz wide C-band transponders use RCA-built 8.5-watt solid state power amplifiers (SSPAs).

The U.S. Federal Communications Agency (FCC) assigned Spacenet 3 to 87 degrees west late in July 1985. Four Ku-band transponders will be used by Sprint, GTE's subscriber-based public-switched domestic U.S. telephone service, and nine of the narrow C-band transponders are spoken for, according to a GTE spokesperson.

NASA's shuttle timetable was disrupted when a computer aborted the launch of *Challenger* on July 12, 1985, a few scant seconds after ignition. Puzzled mechanics, however, were unable to discover anything wrong with *Challenger's* fuel system. Parts were replaced and the launch was rescheduled for July 29, 1985. The second attempt was delayed 97 minutes because of gyroscope problems. Six minutes after *Challenger* finally lifted off, one of its three main engines mysteriously shut down; the shuttle and its crew of seven were only able to achieve a low orbit. If geosynchronous satellites had been aboard, they couldn't have been deployed. NASA officials say faulty sensors were probably to blame.

Early in July 1985, four days after the launch of *Challenger* was aborted, the shuttle *Columbia* suffered "extensive damage" to its heat shield tiles as it was ferried through a rainstorm to Kennedy Space Center atop a Boeing 747. NASA officials said the damage to *Columbia,* which had been undergoing repairs for 18 months, probably wouldn't affect the the timing of its yuletide mission, scheduled to begin December 23, 1985. Several hundred tiles will have to be replaced. The return of *Columbia* brought all four shuttles together for the first time. Cramped quarters will be a problem until a second launch pad at Kennedy is completed and a planned launch center at Vandenberg Air Force Base, California, U.S.A., is constructed.

A preliminary study initiated by Andrea Caruso, the secretary general of the Interim European Telecommunications Satellite Organization (Eutelsat), was discussed by representatives of 13 Eutelsat signatories at a June 1985 meeting in Paris. The 1991 launch of a proposed multinational 60- to 100-watt transponder European direct broadcast TV satellite, they concluded, is clouded by unresolved technical, economic, and regulatory issues. Such problems include the multiple analog component (MAC) transmission-standard impasse, transborder advertising, interactive cable plans, the cultural impact of imported programming, and the financial stability and compatibility of existing and planned national low-power DBS operations. An additional U.S.$600,000 six-month study phase was authorized at the July 1985 Interim Eutelsat Council meeting in Rome. A report outlining initial specifications may be ready by October 1985 according to optimistic insiders.

During the July meeting, Telepazio, representing Italy on the Eutelsat Board of Signatories, demonstrated telephone links with Guadalajara, Spain, and Aagesta, Sweden, using time

division multiple access and digital speech interpolation (TDMA/DSI) at its 22-earth station facility in Fucino. DSI is a spectrum-efficient telephone transmission system that takes advantage of gaps in conversational speech. TDMA/DSI, to be implemented in November 1985, will make it possible to route up to 12,000 simultaneous conversations through Eutelsat I-F2. The Board decided to not to launch the fourth Eutelsat I satellite, an in-orbit spare, on the bargain-priced Ariane 4 demonstration flight because of increased insurance costs. They hope to launch the satellite early in 1987.

A TVRO system given by Rupert Murdoch to King Juan Carlos of Spain has been installed at Zarzuela Palace in Madrid. Murdoch's newspaper and telecommunications empire includes TV stations in Australia and the United States, and SkyChannel, a European cable service distributed by transponder 6 on Eutelsat I-F1 at 13 degrees east.

Arabsat F2 at 26 degrees east has performed 'nominally' according to a Ford Aerospace spokesperson, and has now been handed over to the Arab Satellite Organization (Arabsat) ground control center in Saudia Arabia. Attitude control problems that were publicly downplayed prior to the August 1985 shuttle deployment of F2, however, are still being experienced with Arabsat F1 at 19 degrees east. F1 was launched earlier this year by an Ariane expendable launch vehicle (ELV). At press time, reports were circulating that the Arab Satellite Organization (Arabsat) would soon claim that 1A was a total loss and cash in its insurance policy. Arabsat will have a hard time leasing transponders to other users such as Cable News Network (CNN) and the U.S. Information Agency's WorldNet service if it lacks a dependable backup satellite.

The Mobile Communications Show and Conference '85 will take place September 26 – 28, 1985, in Washington, D.C. The event is sponsored by the Mobile Radio Division of the Electronic Industries Association (EIA). For more information, contact: Electronic Industries Association, 2001 Eye Street N.W., Washington, D.C. 20006, U.S.A. Telephone (202) 457-8765.

The International Telecommunications Satellite Organization (Intelsat) has offered to sell a 77-MHz wide zone-beam transponder on Intelsat V F-6 at 18.5 degrees west to the Argentine Telephone Co. for U.S.$1.8 million, about one-third to one-half of what 36-MHz transponders on domestic U.S. satellites have been selling for. V F-6, launched in 1983, has a seven-year operational life expectancy. It is scheduled to move to 21.5 degrees west by November 1985. The offer, even if it is refused, could affect the U.S. Federal Communications Commission's (FCC) attitude towards privately owned transborder satellite proposals that may cause borderline economic harm to Intelsat.

A travelling wave tube amplifier has failed on Telecom F2 at 5 degrees west, according to reports attributed to Lloyd's of London insiders.

The Telecommunications Equipment Technical Advisory Committee (TETAC) of the U.S. Department of Commerce will sponsor three meetings this fall in Washington, D.C., where U.S. industry members can discuss the export of telecommunications hardware. Input from the industry will be used to set export levels for equipment found in the Commodity Control List (CCL) of the U.S. Export Regulations. Switching and single-and multichannel communications equipment exports will be discussed on September 10, 1985. Radio frequency (RF) equipment exports, (including TVRO hardware now regulated under section 1537A of the CCL) will be discussed September 24, 1985. The October 22, 1985, meeting will cover fiber optic product exports. For more information, industry members can contact: United States Department of Commerce, International Trade Administration, Washington, D.C. 20230, U.S.A. Telephone (607) 974-4215.

Hughes Aircraft Co., and Hughes Communications, C. Itoh, and Mitsui of Japan Communications Satellite Co. (JCSat) have signed a U.S.$300 million contract for two in-orbit 32-transponder Ku-band HS 393 satellites (see "Voice & Data," July 1985). The first satellite is scheduled to launch late in 1987 and to be operational by February 1988. The second 3,000-pound (1,360-kg) satellite is scheduled to launch later that year. JCSat has asked Arianespace and NASA for Ariane 4 launch and shuttle deployment proposals.

The broadcast day for the Sky-Channel programming feed on Eutelsat I-F1 at 13 degrees east, west spot transponder 6, now runs from 07:00 to 23:30 weekends and 10:30 to 23:30 on weekdays (U.K. Summer Time). *Film Factory* (07:00 to 10:00), an "English-teaching" children's show aimed at a broad European viewer base, was added to the weekend morning schedule. *Sky-Trax* pop video repeats, documentaries, and old films have been added to the weekday schedule. The September schedule, says SkyChannel, may include soap operas and other series.

Michael Duffy

The Australian National Satellite System (Aussat) insured Aussat 1 for U.S.$61 million. Aussat 2, scheduled for deployment during the November 1985 shuttle mission, is insured for U.S.$58 million. Aussat was quoted a 17.25-percent premium that was raised to 20 percent when the arrangements were finalized after the unsuccessful deployment of Leasat 3 in April 1985. Mexico, which was protected by a three-month clause, paid only a 17-percent premium to insure its two Morelos satellites for U.S.$75 million. Morelos F2 (116.5 degrees west), a dual C- and Ku-band satellite, and Aussat 2 (164 degrees east), a Ku-band satellite, are scheduled for payload assist module (PAM) deployment during the same shuttle mission in November 1985.

Aussat 1 test transmissions of Australian Broadcast Corp. (ABC) signals to the Australian outback will begin in November 1985 and last about eight weeks, according to Australian Communications Minister Michael Duffy. The official start-up date for the Homestead and Community Broadcasting Satellite Service (HCBSS), Duffy says, is Australia Day, January 26, 1986. There are, however, a few problems that need to be resolved. The ABC staff in New South Wales says it will have nothing to do with Aussat broadcasts if the August 1985 federal budget resolutions don't boost ABC's fiscal 1985 – 1986 budget by A$20 million (U.S.$14.2 million).

Three Mexico City TV stations and one U.S. TV station are now using C-band transponders on Morelos F1 at 113.5 degrees west. XEW-TV, Channel 2 (transponder 12); XHITM-TV, Channel 7 (transponder 14); and XHDF-TV, Channel 13 (transponder 22); and XETV, a CBS affiliate in San Diego, California, U.S.A. (transponder 24); can be received in parts of the southern United States, northern Central America, and all of Mexico with a six-foot (1.8 m) dish. All four feeds are vertically polarized and have 6.2-MHz offset audio subcarriers. The video carrier frequencies are all offset 10-MHz from the center frequencies used by domestic U.S. satellites.

Eutelsat I-F1 at 7 degrees east automatically went in to "sun-lock" and pointed its antenna off into space for six hours after the European Space Agency's (ESA) Redu attitude control ground station failed to send the proper overriding commands. The accident occurred while I-F1 transponder tenants were trying to demonstrate their cable programming feeds at Cable '85 in Brighton, England. A minimal amount of precious stationkeeping fuel was spent to right the satellite, according to the ESA.

Goonhilly 6, British Telecom's (BT) new 32-meter (105-foot) antenna at Goonhilly Downs, on The Lizard in Cornwall, England, will begin operating simultaneously in C- and Ku-band later this fall using time data multiple access and digital speech interpolation (TDMA/DSI). TDMA will also be used *(continued on page 82)*

By Mark Long
U.S. Bureau Chief

International TVRO

Part I: New satellites are creating marketing opportunities in Mexico and Central & South America.

Now that satellite TV has become such a worldwide phenomenon, many distributors and retailers of satellite earth stations are receiving inquiries from just about every major market on the planet. This two-part article will help you develop a thorough understanding of what satellite TV services can be received from each of the world's major regions.

The Central and South American TVRO Marketplace

Earth stations located throughout Central America, the Caribbean, and along the northern coast of South America can receive many of the TV services transmitted by North American domsats, especially if antennas 16 to 20 feet (4.9 – 6.1m) in diameter are used. Site locations in South America that are near or below the earth's equator are so far removed from the beam edges of the North American domsat footprints that antennas 33 to 45 feet (10.1 – 13.8m) in diameter are required to pull in a mere handful of North American satellite TV channels. However, satellite TV services carried by international satellites and the Brazilian domsat SBTS A1 (Brazilsat) can be received in South America by small- and medium-sized parabolic antennas.

• **Brazilsat A1, 65 Degrees West**—Brazilsat was launched earlier this year to an orbital assignment of 65 degrees west longitude. Brazilsat currently carries two Portuguese-language Brazilian TV services that previously were broadcast by means of domestic lease assignments within the Intelsat system. TV Globo (Rio de Janeiro) is relayed on transponder 1 (H), and TV Bandeirantes (Sao Paulo) can be found on transponder 5 (H). By the beginning of 1986, the Brazilian networks SBT-TV and TV Manchete, transponders 2 (V) and 6 (V), respectively, will also be carried by Brazilsat A1. Two additional transponders on Brazilsat A1 (11 and 24), will be used to transmit educational TV programming and video news and sports unilaterals.

The successful deployment of Brazilsat A1 was a watershed event for the South American market, especially with the World Cup soccer games scheduled for next year. Brazilsat will undoubtedly carry live coverage of some of the games, particularly those involving the Brazilian soccer team. Small-aperture terminals throughout South America will be able to access the World Cup soccer matches relayed by Brazilsat. The satellite's high-power spot beam provides signal strengths sufficient to allow reception throughout South America using antennas 10 to 16 feet (3 – 5m) in diameter. Within Brazil, antennas with diameters of eight to ten feet (2.5-3m) have proved adequate.

A second Brazilian satellite will be launched into orbit this fall. Excess capacity on Brazilsat A2 may be used to accommodate the TV services of other South American countries or may even carry the U.S. Information Agency's (USIA) WorldNet service to American embassies and governmental offices throughout South America.

• **PanAmSat, 57 Degrees West**—On July 25, 1985, the FCC granted approval to the Pan American Satellite Corporation (PanAmSat) to construct, launch, and operate a dual-band satellite system, provided PanAmSat can demonstrate it has sufficient financial backing. PanAmSat must also show the International Telecommunications Satellite Organization (Intelsat) that its satellites will be technically compatible with the existing Intelsat network and will not cause significant economic harm to the Intelsat global satellite cooperative.

If the FCC allows PanAmSat to proceed with construction, an Ariane 4 rocket will launch the RCA-3000 satellite in June or July 1986. PanAmSat has requested an orbital assignment of 57 degrees west; the FCC will assign a final orbital location following coordination with Intelsat and the International Frequency Registration Board (IFRB).

The capacity on PanAmSat will be sold or leased on a common-carrier basis to television and radio networks, international news organizations, and private and governmental entities. Ku-band transponders will be used to link New York and Miami with various Latin American countries to exchange news and sports unilaterals and other entertainment programming. C-band transponders will be leased or sold to the governments of Latin American countries to transmit domestic telecommunications services. In addition, the Organizacion de la Television Iberoamericano (OTI) has been promised free satellite capacity in order to inaugurate a special cultural, educational, and informational service comprised of programs submitted by the broadcast networks of the OTI's 21 member nations.

The Atlantic Ocean Intelsat Satellite Cluster

There are two types of Intelsat TV services available to member countries. Video news unilaterals and live sports

coverage are transmitted by Intelsat satellites whenever the occasion arises. The recent Live Aid concert, for example, utilized 6 Intelsat satellites, 7 North American domsats, and 22 transponders to provide TV coverage to broadcast and cable networks in 94 countries. Intelsat satellite transponders are also leased to participating countries to connect isolated rural areas within their own borders to TV broadcast stations located in major metropolitan areas, delivering high-quality signals for lower costs than for what could be provided by existing terrestrial microwave systems.

In the past, most Intelsat TV services have been transmitted in a half-transponder format that limited signal bandwidth to 17.5 MHz. However, at a recent Intelsat Board of Governors meeting in Norway, Intelsat announced that it was increasing the half-transponder bandwidth from 17.5 to 20 MHz, which should substantially improve the reception of these Intelsat TV transmissions in the future.

• **Intelsat V F8, 53 Degrees West**—Intelsat V F8 relays the national TV service of Chile. Channel 7 from Santiago is transmitted on transponder 37 [22] by means of a global beam footprint that covers all of the Americas, most of Africa, and portions of Western Europe. (The first transponder number refers to Intelsat's assigned designation; the number in brackets denotes the equivalent American domsat transponder number.) Since the Chilean TV service is transmitted in the half-transponder format, power levels range from 18 to 21 dBW, requiring antennas 30 to 42 feet (9 – 13m) in diameter for noise-free reception.

• **Morelos F1, 113.5 Degrees West**—A television special recently celebrated the launching of Morelos by listing the benefits of Mexico's first satellite in the fields of health, communication, and education. Such is the importance of Morelos to the Mexican people that the show was simultaneously aired on four TV networks and 400 radio stations.

Mexico has terminated its lease agreements with the Intelsat organization, and all four Mexican services currently broadcast via satellite are transmitted exclusively by the Mexican domsat. The reception of Morelos will be limited to earth stations at locations in the southern United States, all of Central America, and the northwestern coastline of South America. Transponder 12 on Morelos F1 currently carries the full-time programming of XEW-TV, Mexico City's channel 2. XEW's programming is directed toward the conservative middle class of Mexico and offers detailed news coverage of international and domestic events. Transponder 14 is occupied by XHITM, Channel 7 in Mexico City, an educational network intended for the nation's rural communities. Transponder 22 transmits XHDF, Mexico City's Channel 13. XHDF is a commercial television station operated by the Ministry of Government Affairs. Along with its regular fare of sitcoms, game shows, news and entertainment, XHDF also offers some educational and cultural programming. Transponder 24 carries the CBS affiliate from San Diego, California. Under a bilateral agreement between the US and Mexico, American programs are received off the air in Tijuana and uplinked directly to Morelos by the local TV station, XETV. This American programming is being used by cable TV systems throughout Mexico.

The four existing channels on Morelos will eventually be joined by several other services, including Mexico City TV stations XHGC-TV (Channel 5), XHTM-TV (Channel 9), and XHIPN-TV (Channel 11).

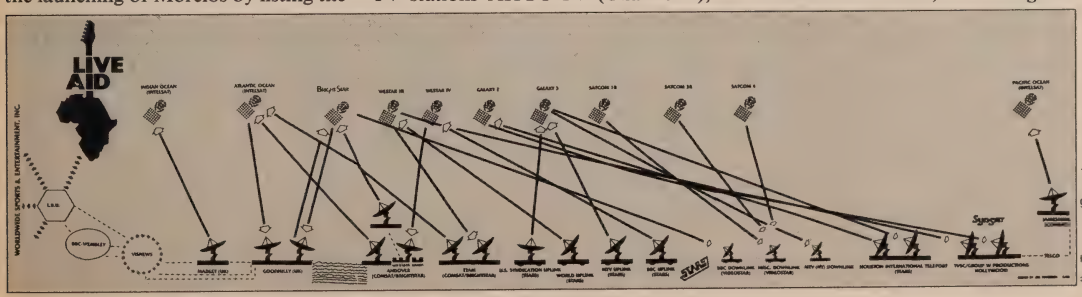
A second Morelos spacecraft will be launched in the fall of 1985. If Morelos F2 is successfully deployed on schedule, it will be used as the main distribution hub for TV coverage of the 1986 World Cup soccer games scheduled to be held in Mexico City.

• **Intelsat V F4, 34.5 Degrees West**—International video news feeds for news-gathering organizations such as UPITN and the Brazilian Globo TV network are also regularly relayed by way of global beam transponder 38 [23 or 24] on Intelsat V F4. When transmitted in the half-transponder format, these news unilaterals have EIRP levels ranging from 20.5 to 23.5 dBW, which requires antennas 25 to 30 feet (7.5m – 10m) in diameter to achieve noise-free reception in South America.

• **Intelsat IVA F1, 31 Degrees West**—In the summer of 1984, Intelsat IVA F1 was transferred to the previously unused orbital slot at 31 degrees west in order to increase Intelsat's overall system capacity. Since then, the satellite has been used to transmit the TV service of Argentina Televisore Color (ATC), Channel 7, in the Buenos Aires. The ATC service is broadcast on a full-transponder global beam lease with an estimated beam-center EIRP of 26 dBW, which requires an antenna with a minimum diameter of at 20 feet (6m) to insure sparklie-free reception in most of South America.

Because Intelsat IVA F1 is nearing the end of its operational lifetime, it has been allowed to enter into an inclined orbit in order to conserve its limited fuel supply. As a satellite in an inclined orbit will meander erratically over the Equator, adjustments in antenna elevation are required throughout the day to maintain optimum reception.

• **Intelsat VA F11, 27.5 Degrees**



Jim Tuverson/Synsat

The Live Aid signal distribution network popularized satellite television around the world.

West—Positioned at 27.5 degrees west longitude, Intelsat VA F11 uses a west hemispheric beam to transmit the domestic lease services of Columbia on transponder 11 [1], Peru, transponder 11 [3], and Venezuela, transponder 12 [5]. The Venezuela and Peru satellite television transmissions can be received adequately in South America with antennas ranging in size from 13 to 16 feet (4 – 5m), but high-quality reception of Colombian satellite TV requires a TVRO that is from 16 to 20 feet (5 – 6m) in diameter.

Venezolana de Television (VTV), Channel 8, Caracas, has some excellent entertainment programs and features intensive coverage of Latin American affairs. The sound portion of VTV is delivered via a narrowband audio subcarrier, which requires a narrower audio passband than most audio subcarrier transmissions.

Radio y Television Peruana (RTP) is Channel 7 in Lima, Peru. This station features Latin American mini-series based on the history of South America, American sitcoms dubbed into Spanish, and documentaries on the native Indian cultures of Peru.

Cadena I TV from Bogota, Columbia, is one of those Intelsat TV lease services that uses no audio subcarrier. Instead, an alternate technique called SCPC (single channel per carrier) is used to relay the sound information. Although the video of Cadena I is transmitted on transponder 11 [1], the sound signal is FM-modulated onto a narrowband carrier contained within transponder 13 [9]. To decipher SCPC transmissions, a second SCPC receiver tuned into transponder 13 [9] must be used to pull in the TV sound signal.

• **Intelsat VA F10, 24.5 Degrees West**—Intelsat VA F10, the first in a new series of Intelsat spacecraft, is currently the Primary Path Intelsat satellite at 24.5 degrees west longitude. Intelsat VA F10 is also used to relay news feeds on behalf of major international news services such Eurovision, Visnews, UPITN, CBS, ABC, and NBC. These news feeds are relayed throughout the day, usually by a half-transponder global beam on transponder 38 [23 or 24]. Reception throughout South America is possible with 20- to 25-foot (6 – 7.5m) antennas.

• **Intelsat V F6, 18.5 Degrees West**—At 18.5 degrees west, Intelsat V F6 acts as the Major Path II satellite. This Intelsat V bird carries international news feeds at various times of the day on a half-transponder global beam on transponder 38 [23 or 24]. Other transponders have occasionally been used for news unilaterals as well. During the recent coverage of the Beruit airline hostage crisis, a west hemispheric beam transponder was used to transmit coverage of the release of the hostages back to TV networks in New York.

• **Gorizont 7 (USSR), 14 Degrees West**—Intersputnik, the international satellite cooperative of the socialist world, uses the Gorizont 7 spacecraft at 14 degrees west longitude and a second Gorizont satellite at 53 degrees east longitude. Intersputnik's membership includes the Soviet Union, Bulgaria, Hungary, Czechoslovakia, Poland, East Germany, Romania, Mongolia, Vietnam, South Yemen, Cuba, Nicaragua, Syria, and Laos.

Two global beam transponders on board Gorizont 7 can be intercepted from anywhere in South America by earth stations that are 16 feet (5m) in diameter. Transponder 9 [6] provides an intriguing mix of programs from Eastern Europe and Cuba. Transponder 7 [1] is also fairly active, transmitting live feeds taken from across Europe or retransmitting selections of Moscow's I or II Programma TV networks.

• **Telecom F1 & F2, 8 & 5 Degrees West**—Telecom satellites are domestic spacecraft owned and operated by the government of France. On C-band, the Telecom F1 satellite at 8 degrees west longitude transmits TV unilaterals between the French mainland and overseas territories using transponder 1 [1]. News feeds are relayed at various times of the day on a semi-global beam that reaches locations in Europe, Africa, the eastern seaboard areas of Canada and the United States, the entire Caribbean Basin, and the northern portion of South America. On Ku-band frequencies, two Telecom F1 transponders are used to transmit video programming into Europe using a spot beam antenna. Launched earlier this year, Telecom F2 is the in-orbit spare satellite for F1. This second commercial French spacecraft is scheduled to operate exclusively on 12 GHz from its orbital assignment at 5 degrees west longitude.

• **Intelsat V F2, 1 Degrees West**—In July 1985, Intelsat V F2 was relocated to an orbital assignment of 1 degree west longitude, replacing an older Intelsat spacecraft that was approaching the end of its operational lifetime. Since the power levels of the newer Intelsat V are 2 to 3 dBW stronger throughout the global beam coverage area, South American locations nearest to the center of the beam can now use antennas in the 20-foot (6m) class for noise-free reception of AFRTS, while sites nearer to the beam edge of the pattern will require a 25-foot (7.6m) dish and a low-noise temperature LNA for acceptable reception.

Like its predecessors, Intelsat V F2 is being used by the U.S. American Forces Radio Television Service (AFRTS) to provide live American programming to U.S. servicemen and their families abroad. Military bases in Iceland, Greenland, Europe, and the isolated atoll of Diego Garcia in the Indian Ocean receive their AFRTS programming from Intelsat V F2, global beam transponder 12 [24]. This service has generated considerable interest because it represents the first full-time availability of American programming via satellite in the heart of South America. However, readers should be aware that AFRTS is planning to fully encrypt its worldwide service to protect its program suppliers from unauthorized commercial use of its services. Three different scrambling systems are presently being evaluated. By the end of 1985, AFRTS will have selected a scrambling system. Testing will begin in January of 1986 and will last for three to six months. Complete scrambling of the AFRTS service should take place by the end of 1986.

In addition to the AFRTS service, Intelsat V F2 also carries several other transponders that are regularly used to transfer news and sport unilaterals between Europe and North America. Organizations such as BrightStar, ABC, CBS, and RTP Portugal all occupy global beam half transponders. Noise-free reception of these services in South America requires an antenna with a minimum size of 25 feet (7.5m) and may require a terminal as large as 35 feet (11m) at locations near the edge of the coverage pattern.

See the next issue of Satellite World *for International TVRO, Part II: Europe, Africa, the Middle East, the Far East, and the Pacific.*

TAKE ALL THE GUESSWORK OUT OF TVRO INSTALLATIONS AND T.I. ANALYSIS WITH AVCOM'S NEW PSA-35 PORTABLE SPECTRUM ANALYZER

ASK ANY TVRO DEALER WHO OWNS AN AVCOM PSA-35 PORTABLE SPECTRUM ANALYZER.

With AVCOM's PSA-35 Portable Spectrum Analyzer you can measure and document TVRO system performance after installation or service. Troubleshoot system problems by observing output signals from LNA's, BDC's, Line Amps and Splitters, and other RF signal components. Measure block system signal balance.

Identify and resolve Terrestrial Interference problems quickly and precisely by displaying offending signals on the PSA-35. Customers can be shown the nature of T.I. problems for clearer understanding.

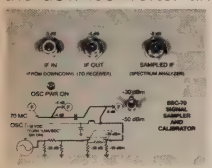
AVCOM's high performance PSA-35 Spectrum Analyzer becomes even more attractive when price is considered. The PSA-35 is $1965. Nothing on the market offers its performance at a comparable price.

Progressive TVRO Dealers, Repair Centers, and Manufacturers will find AVCOM's PSA-35 Spectrum Analyzer to be an indispensable instrument for rapid testing and alignment of satellite equipment. Problems that might otherwise take hours, even days to resolve, can be identified and corrected in minutes, saving money and time, and reinforcing customers' confidence and trust. In terms of time saved and customer good will, an AVCOM Spectrum Analyzer will pay for itself quickly.

AVCOM'S PSA-35 SPECTRUM ANALYZER BECOMES EVEN MORE VERSATILE WHEN USED WITH THESE NEW ACCESSORIES!

SSC-70 SIGNAL SAMPLER AND CALIBRATOR — AVCOM's new Signal Sampler and Calibrator, SSC-70, is designed for use with the AVCOM PSA-35 Portable Spectrum Analyzer.

The first function of the SSC-70 is to sample TVRO downconverter IF signals in the 30 to 200 MHz range. The IF signal is looped through the SSC-70 between the downconverter and the satellite receiver. Tuning voltage present in the IF coax is passed from the receiver to the downconverter unaltered. The IF signal is sampled and is available on the "SAMPLED IF" F-fitting. The PSA-35 Spectrum Analyzer is connected to this port and the IF signal can be accurately measured and examined.



If Terrestrial Interference filters are in the IF coax line, they can be tuned precisely so that video quality is preserved while T.I. is minimized.

Also an internal oscillator operating at 70 MHz, with harmonics at 140 MHz and beyond provides a quick means of checking amplitude calibration and frequency setting of the PSA-35 Spectrum Analyzer. Two output signal amplitude settings are available, one at -30 dBm and another at -50 dBm (at 70 MHz). The output level is selected by a front panel switch. The calibration oscillator is powered by the PSA-35 LNA/BDC power through the input connector. A front panel LED indicates when the oscillator is on.

TISH-40 TERRESTRIAL INTERFERENCE SURVEY HORN — AVCOM's new Terrestrial Interference Survey Horn, TISH-40, is designed to be used in conjunction with the PSA-35 Portable Spectrum Analyzer for site surveys.

The TISH-40 Terrestrial Interference Survey Horn features 18 dB gain in the 3.7 to 4.2 GHz range of frequencies. It is highly directional with high gain and rugged construction. Terrestrial Interference sources can be pinpointed quickly and accurately to increase the utility of the versatile PSA-35 Spectrum Analyzer. 1/4-20 stainless nuts pressed into the flange make LNA assembly and disassembly quick and easy.

FOR MORE INFORMATION WRITE: AVCOM, 500 Southlake Blvd., Richmond, VA 23236 or call (804) 794-2500. To order, call, 1-800-446-2500.

AVCOM's PSA-35 — THE MOST VALUABLE TEST INSTRUMENT YOU CAN BUY FOR INSTALLING AND SERVICING TVRO SYSTEMS!!

By Mark Long
U.S. Bureau Chief

The Avcom PSA-35

This portable troubleshooter is the first spectrum analyzer specifically designed for TVRO.

The spectrum analyzer is a TVRO installation and troubleshooting tool without equal. Not only can it measure signal performance in dB at each critical juncture within the system, it can also identify faulty components, check cable signal losses, and even detect the presence and intensity of terrestrial interference while a system installer is conducting a site survey. Until fairly recently, however, spectrum analyzers were restricted to the test benches of electronics engineers. Analyzers created for microwave circuit designers were too cumbersome and expensive to use in the field. Because these analyzers are frequently used as calibration standards, engineers are often leery of moving their Hewlett-Packard or Tektronix analyzers from one spot on the test bench to another, let alone sending them out on the road.

Recognizing that TVRO technicians could streamline installation and troubleshooting with more sophisticated test equipment, Avcom of Virginia, U.S.A., has developed the first portable spectrum analyzer for the private earth station industry. Avcom, one of the first U.S. manufacturers of home satellite TV receivers and accessories, is well known as the creator of TVRO products for a wide range of highly specialized applications. The PSA-35 spectrum analyzer is the result of Avcom President Andrew Hatfield's quest for the ultimate tool for the TVRO installer. Weighing less than 20 pounds (8kg), the Avcom PSA-35 is small enough to be taken just about anywhere. Since the PSA-35 will fit under a standard airline seat, satellite TV technicians can even take their analyzers on overseas expeditions. (Avcom's spectrum analyzer can be passed through any airport X-ray machine without causing damage to the unit.)

The PSA-35 has been designed to withstand the extra wear and tear inevitably experienced by any field instrument. The Avcom analyzer has a heavy-gauge aluminum chassis with a cover painted with durable epoxy. A carrying handle and AC line cord storage bracket make it easy to cart the analyzer away at a moment's notice. The cord storage bracket also serves double duty as a support stand for the analyzer, which allows the unit to be stood upright so the display can be easily viewed from above (the brightness of the display can be adjusted for shady or sunny areas). A friction knob assembly is also included for locking the handle into various positions as a support bracket for the main unit. This provides further flexibility for orienting the display at the most convenient angle for viewing.

The Avcom spectrum analyzer can be powered either from a 115V AC source or by means of an internal rechargable battery that can power the unit for up to three continuous hours in the field. The PSA-35's built-in charging circuit can completely recharge this battery to approximately 80 percent of its total capacity in a 6-hour period.

The PSA-35 also has an internal DC supply for directly powering most LNAs and block downconverters. When the LNA/BCD power switch is activated, 18V DC is sent up the line via the N and BNC connectors on the front panel. Plug-in PC boards are used throughout the interior of the PSA-35 to facilitate servicing.

Understanding the Avcom PSA-35's Display and Controls

The vertical axis of the spectrum analyzer's viewing screen displays the amplitude of an incoming signal; the horizontal axis is referenced to the signal's frequency. A sliding frequency selector control can be adjusted by the operator so that any group of frequencies within the passband of the analyzer can be observed.

The analyzer's span control is something like the magnification control on a telescope or microscope. The operator can use it to expand the analyzer's viewing "window" out to a panoramic display of the entire 500-MHz-wide satellite band, or can use it to take a close-up view of narrow frequency segments within a single 36-MHz-wide transponder.

The unit's band-select switch allows the analyzer to directly display the signal output of a 4-GHz LNA or the intermediate frequency (IF) output of the downconverter. Both single-conversion 70- or 134-MHz IF signals can be displayed, which allows the operator to view the total downconverter output of a single transponder. Or, the entire 500-MHz-wide output bandwidth of a block downconverter can also be observed by selecting the analyzer's appropriate 500-MHz-wide frequency passband. In addition, the PSA-35 will display the block-frequency output of 12-GHz LNBs so that Ku-band systems can also be tested with the analyzer.

The operator has a choice of three distinct reference levels. The top line of the display can be set to either 0, −20, or

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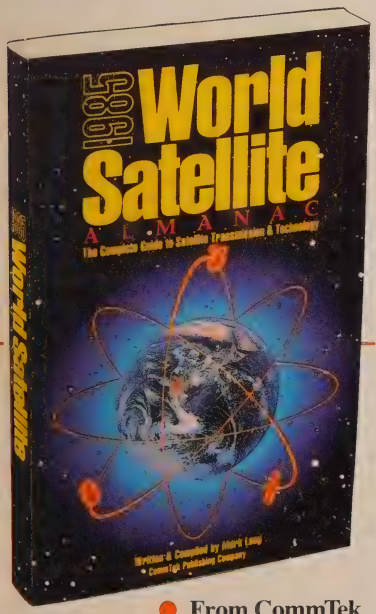

● **From CommTek** — the world's leading satellite communications publishing company.

● **Written and compiled under the direction of Mark Long** — author, lecturer, international consultant on the applications of satellite technology.

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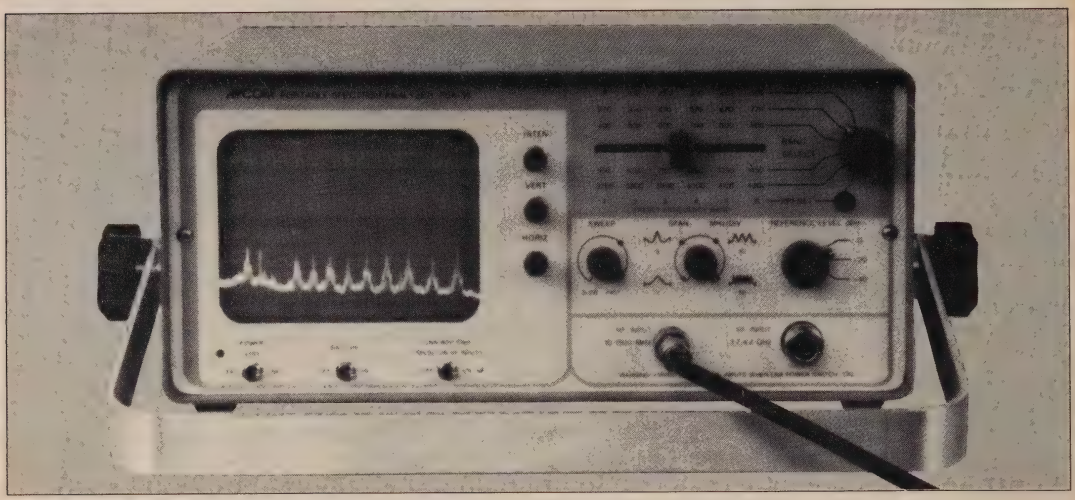


The PSA-35 portable spectrum analyzer has an internal rechargeable auxiliary power source.

– 40 dBm (decibels referenced to 1/1,000 of a watt of power). The appropriate reference level depends on the type of signal being analyzed. A typical 4-GHz feedline signal may be as low as – 70 dBm, while the output of a typical block downconverter could be – 40 dBm.

The analyzer's sweep control sets the rate at which the trace moves across the display. For the purpose of making accurate signal measurements, the sweep rate should be lowered until the signal in question reaches maximum amplitude.

Applications for the Avcom PSA-35 Spectrum Analyzer

The Avcom PSA-35 spectrum analyzer will provide invaluable test results to technicians conducting site surveys, installing new systems, or troubleshooting terminals that are on the blink.

•**Site Surveys.** An auxiliary feedhorn manufactured by Avcom called the TISH (Terrestrial Interference Survey Horn) can be used in conjunction with an LNA and the PSA-35 so that sales and technical personnel can check potential earth station sites for the presence of terrestrial interference (TI). The TISH feed and LNA are bolted together and the output of the LNA connected to the N connector input of the analyzer by means of a coaxial cable. The TISH should be pointed directly toward the southern horizon and then moved eastward or westward in 20-degree increments until a sweep through the entire 360 degrees of azimuth has been completed. TI will appear as signal "spikes" that poke their way up from the illuminated trace line that displays the noise floor on the analyzer's cathode ray tube (CRT). If one complete pass reveals no interference, the installer should rotate the feed 90 degrees and sweep again. This enables the installer to detect the presence of TI cross-polarized to the initial feed orientation.

If TI is detected, the TISH and PSA-35 can be used to determine both the amplitude and the direction of the incoming interference. Alternative sites in the area can then be checked and subsequent measurements compared to results obtained at the initial site. Often, alternative locations can be found with buildings or other obstructions located between the interference source and the dish, thereby blocking out a significant portion of the incoming interference.

The PSA-35/TISH combination can also be used to directly measure the signal strength of each satellite at the site location. The TISH feed can be oriented to the correct elevation and azimuth angles for each individual satellite. By measuring the levels obtained from each of the birds and comparing the results to those obtained at sites in the clear, a technician can determine if nearby obstructions are attenuating any of the incoming signals. After a while, the site surveyor will learn to recognize the unique signal patterns for each satellite and be able to quickly and easily complete a full survey in a matter of a few minutes.

•**Installations.** Installers equipped with the PSA-35 will no longer have to drag an AC extension cord, a TV set, and a satellite receiver out to the dish in order to get the antenna to track properly. The spectrum analyzer will display the amplitude of each satellite's contingent of TV signals, providing the installer with a visual indication of the antenna's performance in tracking any satellite within the geostationary arc. The PSA-35 is also useful for properly orienting the feedhorn for maximum signal capture.

Technicians can also use the Avcom analyzer to actually measure cable loss over significant distances. Once the technician has determined the amount of loss, line amplifiers with the appropriate amount of signal gain can be added to the system to compensate for the amount of attenuation experienced. The level of gain balance across the full bandwidth of a block downconverter is also evident when the satellite's set of like-polarized transponders is displayed across the PSA-35's screen.

•**Maintenance and Troubleshooting.** Avcom has added a valuable contribution to the installation process by creating a document known as the SASAR, or Spectrum Analyzer System Analysis Report. The PSA-35 spectrum analyzer allows a technician to make precise measurements at critical points within a satellite TV system during the installation process. The data obtained

Specifications

Frequency Coverage:
Low Bands:
a) Less than 10 to 500 MHz (70 MHz & other intermediate frequencies)
b) 270 to 770 MHz
c) 400 to 900 MHz block downconverter intermediate frequencies
d) 950 to 1450 MHz
e) Customers can special-order any 500-MHz-wide band between 300 and 1900 MHz for this preset position.
High Band: 3.7 to 4.2 GHz

Display:
Ten horizontal graticule divisions display selected frequency bands and 7 vertical graticule divisions display signal amplitude, with each vertical graticule equalling 10 dB.
Reference Levels: 0, −20, and −40 dBm
Dynamic Range: 60 dB
Amplitude Accuracy: ±2 dB is typical per band
Calibration: Internal calibration, factory set
Frequency Span: From less than 1 MHz to more than 50 MHz per horizontal graticule division

Input Connectors:
Both input connectors are DC-blocked and provide for insertion of +18V DC when appropriate front-panel power switch is activated.
Low Band: BNC
High Band: Type N

Front Panel Controls:
AC Line/Battery Power On/Off Switch
Battery Charge On/Off Switch
LNA/Block Downconverter Power-up-the-Line Switch
Display Intensity Control
Vertical Trace Control
Horizontal Trace Control
Center Frequency Selector
Input Frequency Band Selector
Span Control
Sweep Rate Control
Reference Level Selector

Power Requirements:
115 VAC 60 Hz or internal rechargable battery for portable operation.

Dimensions:
14 1/2" in width by 5 1/2" in height; 13 1/2" in diameter (37cm x 14cm x 34cm)

Weight:
17 lbs (7.72kg)

is then logged into the SASAR form. If maintenance is required at a later date, the service technician has a record of system performance that will help him compare present and past performance levels. Access to SASAR data can change TVRO servicing from a hit-or-miss proposition to a more scientific process that helps the technician quickly and easily check the outputs of LNAs, downconverters, RF modulators, signal splitters, line amplifiers, coaxial relays, power dividers, isolators, and other multiple installation accessories. The effectiveness of notch and bandpass filters for removing TI can also be readily determined.

•Miscellaneous Uses of the PSA-35. Those of us with more specialized measurement needs will also find the Avcom spectrum analyzer to be extremely valuable. For example, the PSA-35 can be used to follow the progress of Intelsat satellites that are being maneuvered from one location to another by zeroing in on their telemetry beacons. New satellites can also be pinpointed in this manner before they begin transmitting TV signals. And as Stephen Birkill pointed out in his accompanying article in this issue (see page 20), the spectrum analyzer can be used to accurately determine the EIRP levels of satellites at exotic locations far removed from each spacecraft's primary coverage area. This allows a TVRO installer to precisely calculate the combination of antenna size, LNA noise temperature, and receiver C/N threshold necessary for adequate system performance for the specific site locale in question. Those readers interested in various kinds of nonvideo (SCPC, FDM/FM, TDMA, etc.) signals can also use the analyzer to identify the nature of satellite voice and data transmissions made by satellites available within their regions.

The operation manual for the Avcom PSA-35 is very well thought out, providing information on various aspects of using the analyzer. Included in the manual are a number of preliminary exercises that will easily and painlessly introduce the art of spectral analysis to dealers with little or no previous experience with similar test gear. Also included is a sample SASAR report that operators can copy and use to compile records of their installations in the field.

Now that we have mentioned many of the things that the Avcom PSA-35 can do, it's only fair that we also take a look at the differences between it and the far more expensive test bench units used for electronic design purposes. The PSA does not provide a calibrated digital frequency readout of the signal under view, nor does it have sample-and-hold capabilities like some of the newer digital analyzers now available. There is no hard copy printout of data results, nor is the screen large enough or the resolution tight enough to permit extremely fine measurements of signal levels. But that is to be expected, since the PSA-35 is priced at around U.S.$2,000, while top-of-the-line Hewlett-Packard and Tektronix analyzers sport price tags in the $30,000-to-$40,000 range.

The PSA-35 is the most powerful troubleshooting tool that I have ever had the pleasure of using. Satellite TV dealers with a large base of satellite systems in place to service will find that the Avcom analyzer will start paying for itself immediately. Installers also will find that this new product can significantly speed up the antenna alignment process. Satellite professionals of every sort will no doubt find a variety of other applications for the PSA-35 that will immeasurably aid their efforts.

Product: The PSA-35 Portable Spectrum Analyzer
Company: AVCOM of Virginia Incorporated
500 South Lake Blvd.
Richmond, Virginia 23236 U.S.A.
Telephone: 804-794-2500
Contact: Andrew Hatfield
Available: From authorized distributors or factory direct
Suggested Retail Price: U.S.$1,965

By Stephen J. Birkill
Europe Bureau Chief

How to Use a Spectrum Analyzer

This indispensable TVRO tool pinpoints problem areas and measures a system's overall performance.

As a designer and sometime installer of TVRO systems and equipment, I find the one piece of kit I most depend upon is the spectrum analyzer. When I need to know what is happening in an RF system, with regard to frequency, power levels (signal and noise power), response, bandwidth, interference, intermodulation, and all such things that cannot be left to chance, this instrument is indispensable. A multimeter will check DC power conditions, a signal level meter will assist in accurate antenna pointing, an oscilloscope will tell me a little more about video quality than I can easily deduce from a TV picture, but the ability to view the frequency domain lets me know whether the system is performing as it should, and pinpoints any problem areas.

The SA, as I shall call it here for brevity, has always been a professional's tool, most at home on the microwave engineer's test bench, not because its application is particularly specialized, but because of its cost. U.S.$20,000 is not a particularly high price for an instrument with 18- or 21-GHz microwave capabilities (some cost three times this amount), and until recently you could expect to pay up to U.S.$10,000 for any SA with an upper frequency limit above 1 GHz. Low-cost analyzers have been produced for American cable TV applications up to 450 MHz, but these are of little use in today's block IF environment. Now we can see Japanese-made general-purpose analyzers breaking the 1-GHz barrier for around U.S.$5,000, and newly emerged in the United States is the simplified, budget-priced SA specifically designed for TVRO use.

What is a Spectrum Analyzer?

The SA is a receiver. Unlike most receivers, which are tuned to a specific frequency and remain there for some time, the SA is continuously scanned, or swept, over a band of frequencies. In order for us to make sense of what the receiver sees while it scans, its output is presented as a cathode ray tube (CRT) display of signal amplitude (up the screen) against frequency (across the screen). The result is a panoramic view of the amplitudes and frequencies of all the signals present in the frequency range being scanned. Just as the familiar oscilloscope allows us to view a signal in the time domain (amplitude against time), so the SA gives us a frequency domain view of one or more signals.

Frequency Calibration

In order for this scanning receiver with panoramic display to qualify as a spectrum analyzer, it must be calibrated in both amplitude and frequency. The frequency calibration allows the user to set the limits of the band being swept. For instance he may wish to view an IF block spanning 950 to 1450 MHz, or to look at a single transponder downconverted to lie between 55 and 85 MHz, or indeed to measure a beacon at 4.199 GHz ±0.5 MHz. The display (and hence sweep) is normally calibrated at either its start (left-hand edge of display) or center, and this point will be tunable over the SA's full range, from a low of a few kilohertz (or sometimes 10 MHz) right up to the analyzer's upper limit, which might be 450 MHz, 1.8 GHz, 12.4 GHz, 22 GHz or even higher. Frequencies above 2 or 3 GHz will be tuned using harmonics of the SA's swept oscillator. Having set the sweep start or center frequency, a second control determines sweep width or frequency span, over a range from zero (sweep off), through convenient values of kHz and MHz per (horizontal) division right up to the analyzer's full sweep width, typically 2 GHz for a microwave instrument. The absolute accuracy of an SA's frequency readout is poor (±5 MHz), but careful use of a calibration oscillator will enable signal frequencies to be read to within ±1 MHz.

Log Display

The amplitude display must be able to show signal level (usually as power rather than voltage) in absolute and relative units. If a linear amplitude detector were used, a 10-fold increase in voltage would take the display from 10 percent to 100 percent of screen height, considerably limiting the dynamic range of signals which could be viewed at one time. Instead, a logarithmic detector is employed, scaled to make each large vertical division on the screen (usually one-eighth of screen height) represent 10 dB, or 10 times power ratio. The screen can then hold a total of 80 dB, representing a 100 million-to-one range of signal power (ten thousand-to-one range of voltage). In practice, the usable dynamic range may

be 70 rather than 80 dB, the bottom tenth of the screen displaying system noise. To further expand the instrument's handling of signal levels, stepped gain and input attenuation controls are included, the gain being calibrated at each step so that the user knows just what power level (in dBm; that is, dB relative to one milliwatt) is represented by each vertical division (horizontal line) on the screen. The top line of the display is usually the reference, and may be set to represent values between —90 and +30 dBm (1 picowatt to 1 watt) or more, depending upon the range of the attenuators. Absolute accuracy here may be within ±3 dB with a good instrument, and will be improved by careful calibration at the frequency of interest.

Milliwatts, millivolts, and dBm

For those unsure about dB notation, Table 1 relates dBm values to voltage and power units, in a 50-ohm system. Using an SA is a sure way to gain familiarity with the decibel. In a 75-ohm environment the relations will be different, and the more specialized 75-ohm analyzers are often calibrated not in dBm but in dB relative to microvolts (dBμV) or millivolts (dBmV), units more familiar to the cable TV technician.

Bandwidth

The spectrum analyzer also offers control of resolution bandwidth, the IF selectivity of its swept receiver. Too wide and it will be impossible to separate closely spaced carriers or sidebands, or to measure a weak signal embedded in system noise. Too narrow and the receiver will not respond to the highest modulation frequencies in the signal being analyzed. Typical maximum bandwidth is 1 MHz or 3 MHz, and the minimum will generally be around 10 kHz. Sweep rate is also adjustable, and a slow scan speed (with attendant flicker) may be necessary with certain types of signal, or when the SA is used on its narrowest resolution bandwidth ranges. Analyzers with storage displays allow these low scan rates to be used without flicker. A variable-video low-pass filter completes the signal processing controls, and enables the HF noise "grass" (and high-frequency modulation information) to be smoothed out on the CRT display.

TVRO Applications of the Spectrum Analyzer

•**Satellite Acquisition**. The SA is unique among our tools in presenting a continuous view of the entire frequency band of interest. The analyzer can be set to display a block IF of 270–770 MHz, 450–950 MHz, 950–1450 MHz, 950–1700 MHz, 1050–1550 MHz, 700–1700 MHz or whatever conversion scheme may be in use. It will show us at a glance the whereabouts of a signal in the band, how strong the signal is, how far above the noise, and to some extent the type of modulation present. This makes it ideal for use when seeking a satellite for the first time, when the receiver's tuning may not be calibrated or the active transponder is not known. By its very nature this situation is more common in the international arena than in North America, where satellites with 24 fully loaded transponders are the norm. Figure 1 (page 22) shows the Statsionar 4 Gorizont downlink band, 3650 to 3950 MHz, as seen in the United Kingdom at an IF of 850 to 1150 MHz (frequency span 50 MHz/division, bandwidth 1 MHz). Figures 2 and 3 show a 950-to-1700 MHz IF (100 MHz/division) representing 10.95 to 11.7 GHz, looking at Eutelsat I-F1 (mixed polarization) and Intelsat VA F11, respectively.

Care should be taken in connecting a spectrum analyzer to the IF feed line. Line powering with DC voltages between 12 and 28V is standard in our industry, and most spectrum analyzers (all of the general-purpose instruments) have DC-coupled 50-ohm inputs. The application of LNA/LNB/LNC/BDC DC voltage to such an analyzer's input will result in destruction of either an internal termination, an input attenuator or a mixer, requiring a costly repair job. A DC power block or bias tee is required, specified for the IF band in use. In practice most of the common 4-GHz DC blocks are adequate for IFs down to 270 MHz, for non-critical applications.

•**Beacons and other Non-video Carriers**. In seeking a signal the SA has the advantage of indicating the presence of non-video modulation formats and telemetry beacons, which may at certain times be the only indication that a satellite is in the antenna beam. In Figure 1, only Gorizont transponders 6 [-1] (the strong one) and 9 [6] (third from left) are active with television. TV transponder 7 [1] is inactive, transponder 8 [4] carries its normal SCPC, and transponders 10 [9] and 11 [11] are occupied by wide- and narrowband digital transmissions. Expanding out transponder 8 [4] (Figure 4) reveals the extent of its

Table 1. Power and Voltage Level Conversions (50-ohm systems only)

dBm	dBW	Power	Voltage (50 ohm)	dB(μV)	Power level comparison (approximate)
-107	-137	20fW	1μV	0	0 dB(μV) = -60 dB(mV)
-100	-130	100fW	2.24μV	7	
-90	-120	1pW	7.07μV	17	C-band antenna output
-80	-110	10pW	22.4μV	27	K-band antenna output
-70	-100	100pW	70.7μV	37	
-60	-90	1nW	224μV	47	
-50	-80	10nW	707μV	57	
-47	-77	20nW	1mV	60	Terrestrial TV antenna
-40	-70	100nW	2.24mV	67	C-band LNA output
-30	-60	1μW	7.07mV	77	K-band LNB output
-20	-50	10μW	22.4mV	87	Terrestrial MW antenna
-10	-40	100μW	70.7mV	97	
-9	-39	125μW	80mV	98	
-8	-38	158μW	89.1mV	99	
-7	-37	200μW	100mV	100	
-6	-36	250μW	112mV	101	
-5	-35	316μW	125mV	102	
-4	-34	400μW	141mV	103	
-3	-33	500μW	158mV	104	Receiver demodulator
-2	-32	631μW	178mV	105	
-1	-31	800μW	200mV	106	
0	-30	1mW	224mV	107	0 dBm reference
+1	-29	1.25mW	250mV	108	
+2	-28	1.58mW	283mV	109	
+3	-27	2mW	316mV	110	Multichannel cable
+4	-26	2.5mW	355mV	111	
+5	-25	3.16mW	400mV	112	
+6	-24	4mW	446mV	113	
+7	-23	5mW	500mV	114	Receiver Local Osc.
+8	-22	6.31mW	562mV	115	
+9	-21	8mW	631mV	116	
+10	-20	10mW	707mV	117	
+13	-17	20mW	1V	120	120 dB(μV) = 60 dB(mV)
+20	-10	100mW	2.24V	127	
+30	0	1W	7.07V	137	
+40	+10	10W	22.4V	147	FSS RF power
+50	+20	100W	70.7V	157	
+53	+23	200W	100V	160	DBS RF power
+60	+30	1kW	224V	167	FSS EIRP
+70	+40	10kW	707V	177	FSS EIRP
+80	+50	100kW	2240V	187	FSS EIRP
+90	+60	1MW	7070V	197	
+93	+63	2MW	10000V	200	High Power DBS EIRP

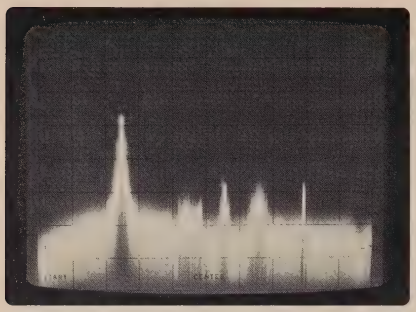


Figure 1: Gorizont 7 spectrum 3650-3950 MHz. 2 TV transponders, 2 digital and 1 SCPC. Transponder 7 [1] inactive.

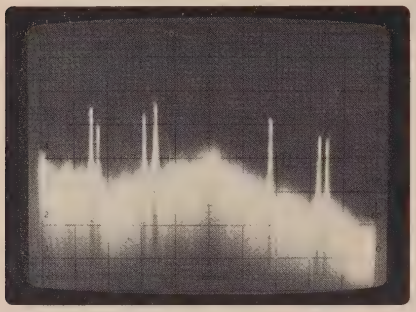


Figure 2: ECS F1 spectrum showing mixed X and Y polarization, and poor LNB response. Transponder 4 (TV5) is off.

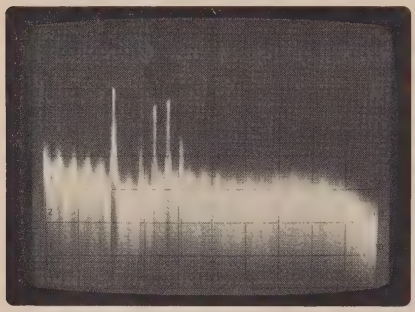


Figure 3: Intelsat VA F10 spectrum showing half-transponder transmissions in transponders 1-2 and 5-6, and amplitude ripple on feed line. Satellite-generated intermodulation products are visible (see text). Premiere channel is here operating at saturation.

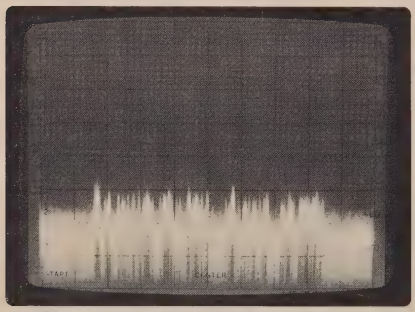


Figure 4: "Close-up" view of Gorizont 7's SCPC transponder 8 [4] on northern hemispheric beam.

single-channel-per-carrier (SCPC) traffic. Looking now at Figure 2, it may not be apparent that a telemetry beacon is present at 11.45 GHz, but expanding the display (Figure 5) brings it into view (just left of center), some 57 MHz below the much stronger (and wider-band) SAT-1 signal in transponder 10 (TV5 occupies the center-screen area when its horizontally-polarized transponder 4 is active). Expanding further and reducing the resolution bandwidth (Figure 6) allows us to measure the beacon carrier.

•**Detection Sensitivity**. A further advantage in satellite-seeking is the analyzer's ability to reveal the presence of signals just 1 or 2 dB above the noise level in a bandwidth considerably less than that of a satellite TV receiver. The beacon in Figure 5 is just 1.5 dB above displayed noise in a 1-MHz bandwidth, yet is clearly distinguished. A 300-kHz bandwidth can be employed for a full-band sweep, and gives an effective 20 dB sensitivity improvement over a receiver's 30-MHz (say) IF bandwidth, for a similar signal detection criterion. The comparison is reasonable, as in each case (SA versus satellite receiver) a 3-dB carrier/noise ratio will usually correspond to positive identification of the signal above the system noise floor. When aligning an antenna this 20-dB advantage will considerably simplify initial acquisition of the satellite.

•**Antenna Alignment**. Having found the satellite, the analyzer can then be used to point the antenna accurately for maximum signal. The display is switchable to represent 1 dB (instead of 10 dB) per large division (Figure 7). This expanded vertical scale provides a very sensitive indication of signal strength, and the effects of small adjustments to an antenna or feed system are readily seen. Likewise, polarization null adjustments are best performed using the analyzer, or the final 15 dB of cross-polar rejection will be lost below the wide-band receiver's noise level.

•**Interference and Intermodulation**. Adjacent satellite interference 20 dB below the wanted signal is unlikely to be noticed on a TV picture, but is quite clearly seen and quantified on the spectrum analyzer display. Potentially harmful interference may be identified and antenna adjustments or improvements made before it becomes a problem. Terrestrial microwave interference can be impossible to distinguish from a high level of system noise in a satellite TV receiver, but with the SA, the carrier-to-interference ratios can be measured and the interfering signal's frequency and direction assessed, enabling filtering or shielding solutions to be specified.

Intermodulation distortion, associated with non-linearities in an amplification or distribution system, can result in poor carrier-to-noise ratios (C/N) and the generation of spurious products within the band. In Figure 3, the effect of intermodulation in a satellite transponder may be seen. The Screen Sport and MirrorVision (formerly TEN/The Movie Channel) transmissions use half-transponder channels 3W and 4W in transponder 5-6 of Intelsat VA F11 at 27.5 degrees west. Channel spacing is 40 MHz, and the display clearly shows another pair of carriers, lower in level, spaced by a further 40 MHz at either side. These are third-order products (2f1-f2 and 2f2-f1) generated within the transponder's 10-watt TWTA and passed by its output multiplexer at a level some 12 to 15 dB below the fundamental carriers. The intermods carry a mixture of the program modulation on the two primary channels, but it's not the best way to keep an eye on the big fight while watching a movie! These intermodulation products are accepted by BTI, Intelsat, and the programmers, as they cause no interference to other services. The higher-level carrier lower down the band is that of Premiere/The Children's Channel, half-transponder channel 2W in transponder 1-2, but operating at single-carrier saturation when this shot was taken.

•**Frequency Response**. A common problem in TVRO installations is inequality in level between signals on different frequencies. Ideally the system's response should be flat, all channels arriving at the receiver within its optimum range of signal levels. Slope on the system can mean the highest level signals are on the point of generat-

ing significant intermods while the weakest are not strong enough to overcome the input noise of the indoor unit. Either way, the result is degradation of carrier/noise ratio. Figure 2's view of Eutelsat I-F1 shows the effect of an LNB with a "hump" in its response. Noise at mid-band (1300 MHz IF) is at maximum, while at 1700 MHz it has fallen by 15 dB. This represents not a change in noise figure across the band, but in overall IF gain. Feed line loss increases with frequency, and contributes to the effect seen. Most receivers will cope quite happily with such a spread, provided the minimum gain in the band is above the point where system noise temperature would suffer. Line amplifiers often incorporate a compensating tilt into their response to counter this characteristic of the cable.

In Figure 3 a different kind of variation from flatness can be seen. Here it takes the form of an amplitude ripple. This is a sure sign of an impedance mismatch somewhere in the block IF cabling system. RF power reflected at the discontinuity generates a standing wave pattern which reinforces or cancels some of the IF energy at different frequencies, according to the length of the mismatched cable. The ripple diminishes towards the high end of the band as VSWR improves due to increasing cable loss. A severe ripple can be the cause of otherwise unexplained noisy transponders, or generally poor demodulation performance. Such variations from a flat response would be difficult or impossible to discover, let alone correct, without the spectrum analyzer.

•**Filter Response**. In the absence of a sweep generator and display, or a network analyzer, it is possible to use the spectrum analyzer to check a receiver's IF filter response. Figure 8 shows a display of an IF filter at 10-MHz/division frequency span, 3-MHz resolution bandwidth, and with video filtering (display smoothing) at maximum. The 3-dB bandwidth of 27 MHz can be measured, as can 10-dB and 20-dB bandwidths of 40 and 55 MHz. Ultimate selectivity measurement is limited in this example by the analyzer's noise floor. The test subject here was a four-element conventional IF filter—a SAW filter would reveal very much steeper skirts. In order to obtain this display the SA must be connected to the filter output, preferably by an attenuator pad to ensure the correct load impedance, and the filter must be fed with flat noise at its normal operating level. This is done with the LNA/B/C connected, either by tuning to a vacant channel or by moving the antenna to a vacant piece of sky.

In Figure 9 the same filter is shown passing a satellite TV signal. An adjacent-channel signal is visible at right, some 35 MHz away from the tuned signal, and 35 dB down. SA buffs will note the video filtering has been backed off to obtain a true peak reading, that the tuned signal carries PAL color bars with 20-MHz/volt deviation plus energy dispersal, that C/N is probably marginal, and that the receiver has inverted the frequency spectrum prior to filtering. All these facts can be deduced from the display. In the absence of the dense color subcarrier sidebands produced by the color bars, it is possible also to identify audio subcarrier frequencies, as in Figure 10.

•**Oscillator Noise and Baseband Spectrum**. The spectrum analyzer is essential if one is to measure local oscillator spectral purity, harmonics, or sideband noise. This measurement goes beyond the everyday TVRO terminal requirement, and I have not illustrated it here. Also not shown here is the use of the analyzer on the demodulated baseband, where it is a simple matter to identify the presence, levels, and frequencies of all audio and data subcarriers, and to spot problems such as a high level of noise at upper baseband frequencies.

•**Carrier-to-Noise Ratio**. This is the big one. C/N, as I'll write it here, is the fundamental measure of how well you've specified and installed the antenna and LNA/B/C for the satellite signal to be received, and influences directly the quality of the subsequent demodulated signal. What's actually measured is the ratio of carrier-plus-noise to noise, from which pure C/N can be calculated. Various methods are used, and all have their adherents. An

Figure 5: ECS F1 telemetry beacon is just visible left of center. At right is SAT-1 transmission in transponder 10.

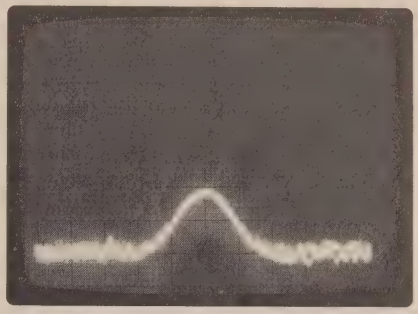


Figure 6: This shows the result of decreasing frequency span and bandwidth to analyze the ECS beacon seen in Figure 5.

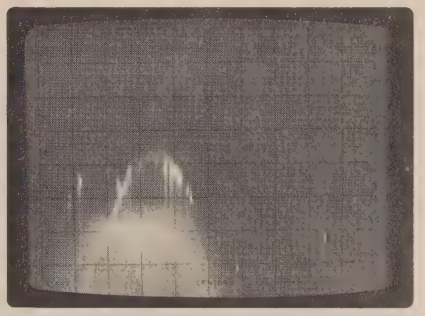


Figure 7: Switching to 1 dB per division enables fine tweaking of the antenna, even when using a TV signal.

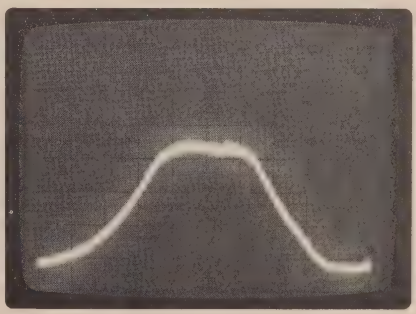


Figure 8: IF bandpass filter response may be checked using the spectrum analyzer, if the filter is fed with wideband noise and the display is smoothed with the video filter.

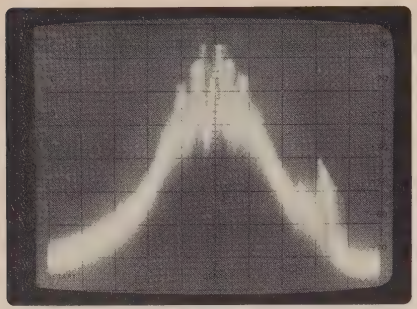


Figure 9: This is the filter of Figure 8 passing a color bar modulated TV signal. Energy peaks at white, black and sync are visible, as are the strongly-dispersed 4.43 MHz color subcarrier sidebands. Adjacent- channel transmission may be seen at right.

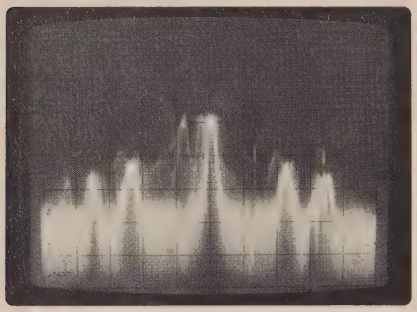
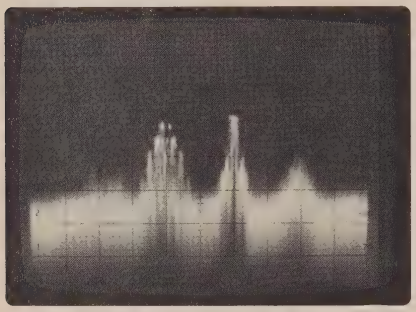


Figure 10: Lower levels of color subcarrier energy permit audio subcarrier sidebands to be seen. Subcarrier here is at 6.65 MHz.



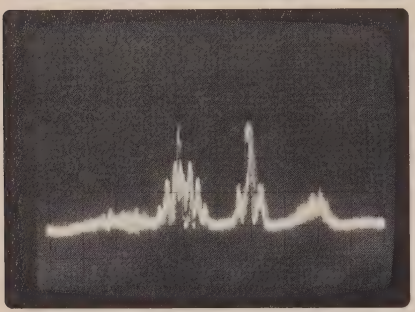


Figure 11: Read carrier levels with video filter out (above) and noise level with filter in (below). These are Intelsat VA F10 channels 3W and 4W, with their attendant intermods.

accurate and meaningful measurement demands a filter of known characteristics (specifically its noise bandwidth) and either a precision RF power meter or a precision attenuator plus a reasonably stable RF meter. The receiver's own AGC system can in some cases provide a sufficiently reliable power indication. The large earth station operators favor the use of a special narrowband IF filter, combined with the ability to sidestep the carrier by 5 MHz or so (that's easy when you control the uplink). The US cable operators traditionally disable the receiver's AGC, and "lose" the signal by elevating the antenna away from the bird.

We could fill an issue of *Satellite World* on the subject of C/N, but thankfully I've confined myself to talking about how it can be measured using the spectrum analyzer, accurately enough for most TVRO work. This is an immensely powerful facility, as it enables calibration of a complete TVRO system and confers the ability effectively to measure power-flux density, from which we can infer EIRP. And there is the same gain in sensitivity as we noted earlier, relative to a TVRO receiver, due to the ability to measure in bandwidths much less than the 27- to 36-MHz order of the video receiver. This allows us to measure signal levels at a prospective location using a small portable antenna, and confidently extrapolate the results to determine just how large a dish is required for good TV reception.

•**Noise Bandwidth and Correction Factors**. In dealing with noise, we must be conscious of its wideband nature. Noise power is proportional to bandwidth, and a C/N value is meaningless unless a noise power bandwidth is stated. Boltzmann's constant relates noise power to both bandwidth and to the absolute temperature of the equivalent noise source resistance. In a satellite receiver the noise bandwidth is generally taken to be the same as the IF filter's 3-dB bandwidth; typical values are between 25 and 36 MHz for a full-transponder service. With the SA we shall be making the measurement in a much smaller bandwidth, 1 MHz or less, and in order to make our measurement meaningful we must be able to relate the measurement's noise bandwidth to the receiver's noise bandwidth.

We must start by knowing the analyzer's noise bandwidth. It is not the same as the value printed on the "resolution bandwidth" control. The most appropriate shape for a spectrum analyzer's IF filter is similar to that of a single-tuned circuit. This is very different from the classical "perfect" rectangular filter response approximated by SAW devices, for instance, and results in the filter's noise power bandwidth being significantly greater than its nominal (3-dB) bandwidth. Hewlett-Packard quotes a value of 1.2 for this factor in its instruments; it may be slightly different with other manufacturers (see H-P application notes 150-4 and 150-9). So we must correct our measured noise level by −0.8 dB (the ratio 1.2 expressed in dB) if we are to base our C/N calculation on the SA's resolution bandwidth.

To measure a noise level on the analyzer display, we must smooth out the thick "grassy" trace it gives, using the analyzer's video filter. This reduces the noise band's "thickness" from some 20 dB down to 1 or 2 dB, and its average level can be read quite accurately from the display. But the action of the SA's log detector is to cause the noise level to display 2.5 dB below its true value. So now we need to add 2.5 dB to the noise level read from the SA display. It is convenient to combine these two correction factors: add 2.5 dB to the measured noise power level, and subtract 0.8 dB. The net result is that we must add 1.7 dB. This is the same as subtracting 1.7 dB from the C/N we read from the analyzer's screen.

Reading the Display

Making this basic C/N measurement from the SA display is quite straightforward. We simply measure carrier level and noise level, and derive the difference in dB. Figure 11 illustrates the technique. We are looking at channels 3W (color bars again) and 4W on Intelsat VA F11, with a resolution bandwidth of 1 MHz. We can see in the top photo that the two carrier levels are 29.5 dB and 28.0 dB below the analyzer's refer-

ence level (top line). The noise trace is too fuzzy to permit a measurement until we bring in the video filter (bottom photo). Now we can see the noise is centered on the −60-dB line, in the vicinity of both channels, so the carriers are in fact 30.5 dB and 32.0 dB above this level. Note that the video filtering (bottom photo) has made the carrier levels read lower than their true values. The rule is to measure noise with the filter in and signal with it out. All other settings must remain unchanged.

So from the SA display we have measured uncorrected C/Ns of 30.5 dB (channel 3W) and 32.0 dB (channel 4W). We now apply the −1.7-dB combined correction factor, giving us true values of 28.8 dB and 30.3 dB, in a 1-MHz bandwidth. But, you'll be thinking, surely these are carrier-plus-noise to noise ratios. In fact, since the measured values are so high, the contribution of noise level to measured carrier level can be neglected—it amounts to less than 0.1 dB, while the accuracy of the SA method of C/N measurement is only ±0.5 dB at best.

Normalizing the Result

30 dB might sound like a lot of C/N, but remember we used a 1-MHz bandwidth for the measurement. We could have used 3 MHz, or 300 kHz, or 100 kHz. Each factor of three would have changed the noise level reading by about 5 dB, but the signal level would have stayed the same. So in 3 MHz we would have measured around 25 dB C/N, in 300 kHz the reading would have been 35 dB, and the 100-kHz bandwidth would have given us a C/N in the region of 40 dB. In general, the higher the C/N measured on the display, the more accurate is the result; but when using bandwidths below 300 kHz with an FM TV signal one must be very careful to ensure the true peak carrier value is being read: not all elements of the modulating video signal will allow the display to reach its true maximum in a 100-kHz bandwidth.

Taking the 1-MHz bandwidth as a standard, we must now normalize our C/N reading to the receiver's noise bandwidth. If this is, say, 30 MHz, then we must reduce our C/N value by the (power) ratio of 30 to 1, expressed in dB. That is 10 log 30, or 14.8 dB. So our receiver's demodulator will be presented with 28.8 − 14.8 + 14 dB C/N on channel 3W, and 30.3 − 14.8 + 15.5 dB on channel 4W.

Table 2 presents a matrix of values to normalize instantly among the four most useful SA bandwidths and five typical receiver bandwidths. Remember, the 0.1-dB resolution given here doesn't mean we can measure to this degree of accuracy—there are several imponderables in the equation, not least receiver noise bandwidth; and an absolute accuracy of about ±1 dB is the best that can be achieved by this method. Relative measurements can be made to ±0.5 dB, with care. All the same this is perhaps the single most useful measurement that can be made in a TVRO system.

Table 2: Normalizing Between SA Bandwidth and Receiver Bandwidth

Spectrum Analyzer Resolution Bandwidth	TVRO receiver IF bandwidth (MHz)				
	24	27	30	33	36
100 kHz	23.8	24.3	24.8	25.2	25.6
300 kHz	19.0	19.5	20.0	20.4	20.8
1 MHz	13.8	14.3	14.8	15.2	15.6
3 MHz	9.0	9.5	10.0	10.4	10.8

Normalization factor (in dB) subtracts from SA C/N to give TVRO receiver C/N

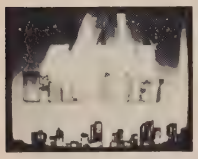
The Analyzer Marketplace

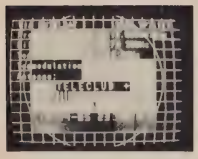
Without a doubt the best instruments for static applications are the full specification microwave spectrum analyzers, from top-name manufacturers like Hewlett-Packard and Tektronix. These SAs will cover the RF as well as IF ranges, offering a high degree of accuracy combined with features which make them convenient and simple to use. They are also bus-compatible, which refers not to their transportability but to the fact that they can be programmed and read via a computer interface. These expensive laboratory instruments are not suitable for field use, and a better choice, if you can afford it, is a professional instrument with limited microwave capability, preferably in a portable case. The 8559A is H.P.'s lowest-cost microwave analyzer, and covers the range 10 MHz to 21 GHz. The 8558B reaches 1500 MHz, enough for American block IF systems, while Tek's equivalent, the 496, covers from 1 kHz to 1800 MHz. Many instruments specified to 1500 MHz will in fact tune to 1700 MHz or higher with only marginally impaired accuracy, and should not be dismissed from consideration where 1700 MHz coverage is required. The Japanese company Ando has recently introduced a comparatively low-cost SA with this capability, and there are other oriental products worthy of our attention.

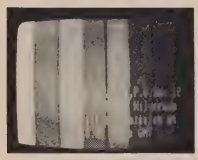
In the CATV field, Texscan has a range of inexpensively priced 75-ohm instruments that have a TVRO application outside of block conversion systems, and were until recently standard equipment in the labs of several U.S. TVRO receiver manufacturers. The bravest new showing is perhaps that of Avcom, which has introduced a portable spectrum analyzer specifically for U.S. TVRO, with 75-ohm coverage to more than 1500 MHz and a built-in BDC for the 4-GHz band (see review on page 16). This instrument offers internal BDC and LNA powering, and the rechargeable battery should make it eminently suitable for field use.

Acknowledgement: Thanks are due to Satellite TV Antenna Systems Ltd for the use of an H-P 8559A/182T Spectrum Analyzer in preparing the photographs that accompany this article.

European Cable Programmers







Eutelsat I-F1 at 13 Degrees East

Tr.#	Service	Uplinking Country	Operating Category
1	**Radio Televisione Italiana (RAI):** The Italian public TV network no. 1.	Italy	News/ Sports/ Variety
2	**3-Sat:** German-language entertainment service features programs from the German ZDF, Austrian ORF, and Swiss SRG TV networks.	W. Germany	News/ Sports/ Variety
3	**Olympus TV:** This pan-European entertainment service provides original program material and feeds from Eurovision and selections from the catalogs of EBU member statios. ♦	Netherlands	News/ Variety
4	**TV-5:** French-language program service offers contributions from the French TF 1, FR3, and Antenna 2 networks as well as programs developed by the Swiss SSR and Belgian RTFB TV services.	France	Variety/ Educational
4	**New World Channel:** A multilingual religious program service.	Norway	Religious
4	**WorldNet:** News, documentaries, and educational programming from the U.S. Information Agency.	US	News
6	**SkyChannel:** English-language family entertainment network provides children's programming, pop music videos, popular American TV series, sports events, movies, and documentaries.	UK	Music/ Sports/ Variety
7	**Teleclub (Paysat):** Premium movie service operated by Swiss Rediffusion and Taurus/Beta films of Munich.	Switzerland	Movies
8	**Radio-Tele-Luxembourg (RTL +):** Luxembourg German-language public TV channel 7 in Luxembourg features news, entertainment, and American TV serials and films. ♦	Luxembourg	News/ Variety
9	**FilmNet/ATN:** Premium movie service offers first-run films and movie classics from around the globe.	Belgium	Movies
9	**World Public News (WPN)** ♦	Belgium	News
10	**Sat 1:** German cable TV service has variety shows, documentaries, series, and film classics.	W. Germany	Variety
12	**Music Box:** Pop music video entertainment service offers concerts, concert tour guides, music news and interviews, and the latest European charts.	UK	Pop Music

Eutelsat I-F2 at 7 Degrees East

5	**SVT-1:** Swedish TV.	Sweden	----
5	**SVT-2:** Swedish TV.	Sweden	----
6	**NRK TV-Norge:** Norwegian public TV channel originates from Oslo, Norway.	Norway	News/ Sports Variety
3 & 9	**Eurovision:** News, sports and entertainment exchanges between EBU member stations *	EBU	News

Intelsat VA-F11 at 27.5 Degrees West

1W	**Premiere:** British-based premium movie service	UK	Movies
1W	**The Children's Channel:** entertainment and educational programs for children of all ages	UK	Children
3W	**Screen Sport:** British sports, network features professional, collegiate and amateur sporting events from around the world.	UK	Sports
4W	**MirrorVision:** English-language premium movie and entertainment network.	UK	Movies
?E	**Cable News Network (CNN):** Live round-the-clock international news coverage, investigative reporting, sports, weather, interviews, and financial news. Scheduled to start late in 1985. * ▲	US	News

★ UK Summer Time
♦ Services scheduled to be operational by July 1985.
▲ Services scheduled to be operational by September 1985.
* Services available only to EBU member stations.
N/A = not available

Programming Hours ★	Programming Contact	Address	Advertiser-Supported?	Subscription Rate	Cable Subscribers
12:00 – 24:00	Vitorio Bono Telephone: (+39 6) 36861	Direzione Centrale TV Viale Mazzini 14, 00195 Rome, Italy	Yes	Free	N/A
18:00 – 24:00	Dr. Volker V. Hogen Coordinator 3-Sat Telephone: (+49 6131) 701	Postfach 4040 6500 Mainz 1, West Germany	No	Free	N/A
11:00 Tests	Paul Hendrickson Telephone: (+31 35) 779 111	P.O. Box 10, NL-1200 JB Hilversum, The Netherlands	Yes	Free	---
19:00 – 22:30	Jean Rouilly Telephone: (+33 1) 299 41 25	21, rue Jean Goujon 78005 Paris, France	No	Free	2,000,000
11:00 – 12:00 14:00 – 15:00 22:40 – 23:40	Trond Rauoe Vice President of Sales Telephone: (+47 2) 46 28 60	EBN A/S Lybekkergt. 1 0184 Oslo, Norway	No	Free	250,000
12:00 – 14:00	Richard Levy Alvin Snyder Telephone: (202) 376-7806	U.S. Information Agency 301 4th St. SW Washington, D.C. 20547	No	Free	---
10:30—23:30 M-F, 07:00—23:30 Sat-Sun	Tony Loggie Director of Sales Telephone: (+44 1) 636 4077	Satellite Television PLC 31-36 Foley St. London W1P 7LB UK	Yes	Free	3,269,212
19:15 – 24:00 M-F; 17:00 – 24:00 Sat-Sun	Pierre Meyrat Telephone: (+41 1) 492-4433	Flueastrasse 7, Postfach CH-8048 Zurich, Switzerland	No	SFr. 28,00	267,545
17:00 – 24:00	Helmut Thoma Director Telephone: (+352) 44 90 41	Villa Louvigny BP 1002 Luxembourg	Yes	Free	---
18:00 – 01:00	Martin Lindskogh Telephone: (+32 20) 06 03 03	Keizersgracht 319 1016 EE Amsterdam, The Netherlands	No	HFl. 30,00	20,000
10:00 – 12:00 14:00 – 18:00	Marc de Cock Telephone: (+32) 50 34 02 12	I.T.S. Ezelstraat 1, 8000 Brugge, Belgium	No	N/A	—
13:30 – 24:00	Jurgen Doetz Telephone: (+49 69) 74 77 66	Friedrich Ebert Anlage 2-14 6000 Frankfort 1, West Germany	Yes	Free	214,000
07:00 – 0:100	Marcus Bicknell Director of Sales Telephone: (+44) 1 580 6611	Central Cross House 2 Stephen St., London W1A 4PL UK	Yes	Free	2,500,000
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16:55 – 22:00	S. Torjusson Director of Sales Telephone: (+47 02) 459050	Norsk Rikskringkasting TV Oslo 3, Norway	N/A	N/A	N/A
12:00 & 17:00	R. Gressmann Director Telephone: (+32 02) 375 59 90	European Broadcasting Union Technical Center Av. Albert Lancaster, 32 B-1180 Bruxelles, Belgium	---	---	---
16:00 – 02:00 M-F; 15:00 – 03:00 Sat-Sun	Frank Dawson Network Relations Telephone: (+44) 1 580 6611	Galaxy Television Thorne EMI, Central Cross House 2 Stephens St., London W1A 4PL UK	No	£7.50	N/A
07:00 – 15:00	Frank Dawson Network Relations Telephone: (+44) 1 580 6611	Galaxy Television Thorne EMI, Central Cross House 2 Stephens St., London W1A 4PL UK	Yes	Free	120,000
17:00 – 22:50 M-F; 16:00 – 23:00 Sat-Sun	Chris B. Howland Sales Director Telephone: (+44) 1 222 0855	23 Queen Anne's Gate London SW1H 9BU UK	No	N/A	110,000
16:00 – 01:00	Ward Thomas Telephone: (+44) 1 930 7810	United Cable Programmes Ltd. 48 Leicester Square, London WC2H 7LZ UK	No	£7 95	50.000
24 hours	Charles Bonan Managing Director Telephone: (+44) 1 631 5278	Turner Programme Services 66 – 67 Newman Street London WIP 3LA UK	----	----	----

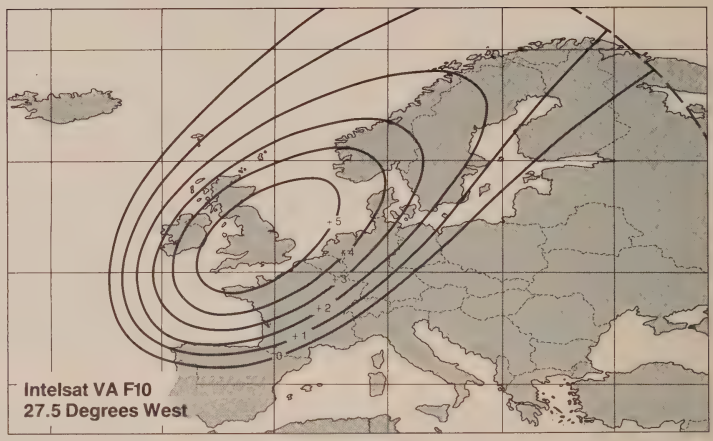
(NOTE: Submit changes in writing to *Satellite World* magazine, European cable TV group, P.O. Box 159, Winter Beach, Florida 32971. Closing date is the 1st of the second month preceding issue date.)

European Cable Services Beam Coverage Maps

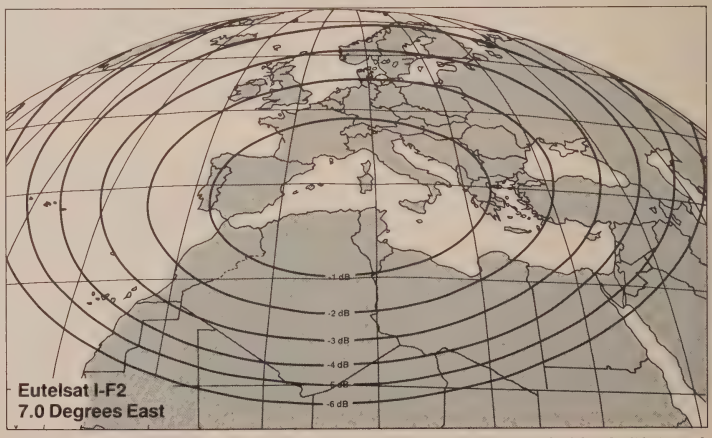
By using the following Ku-band margin-above-threshold chart (table I) you can determine the right combination of antenna size and low noise block downconverter (LNB) noise figure to achieve a carrier-to-noise ratio (C/N) that is higher than the satellite receiver's threshold. To use the chart, you will need to first determine the effective isotropic radiated power (EIRP) level at your location by referring to the appropriate European Ku-band satellite footprint maps that follow.

Signal attenuation due to rainfall is an important factor that should be taken into consideration. Ku-band reception can be dramatically reduced due to the absorption or scattering of satellite signals as the microwaves pass through rain-filled layers of the atmosphere. Consequently, 11-GHz satellite TV receive terminals must have enough signal margin above the threshold level of the receiver to guarantee continuous, noise-free reception.

The margin level in decibels (dBs) selected by the terminal operator will vary, depending on the location of the receiving terminal and whether the earth station is being used for commercial or private use. Private terminal users may decide to accept a certain level of rain outages and use equipment with a low value of margin, or perhaps no margin at all. Commercial users' receiving terminals should deliver adequate reception even under the worst-case conditions.



The four west spot beam services all have a beam edge EIRP of 40 dBW.

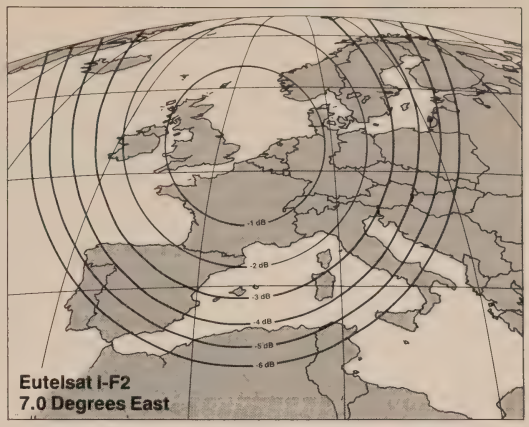


A minimum EIRP of 35 dBW at the -4 dB contour of the Eurobeam is specified for the lifetime of the satellite.

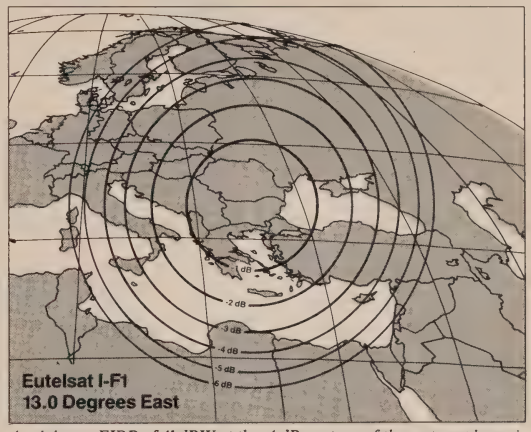
Antenna Size:	4 m 13 feet		4.8 m 16 feet		6 m 20 feet		7.6 m 25 feet		10 m 33 feet	
LNB N.T.:	2.45	3.45	2.45	3.45	2.45	3.45	2.45	3.45	2.45	3.45
LNB N.F.:	220	350	220	350	220	350	220	350	220	350
EIRP Level:										
55 dBW	+23.0	+21.1	+24.8	+22.9	+26.8	+24.8	+28.7	+26.8	+31.3	+29.2
54 dBW	+22.0	+20.1	+23.8	+21.9	+25.8	+23.8	+27.7	+25.8	+30.3	+28.2
53 dBW	+21.0	+19.1	+22.8	+20.9	+24.8	+22.8	+26.7	+24.8	+29.3	+27.2
52 dBW	+20.0	+18.1	+21.8	+19.9	+23.8	+21.8	+25.7	+23.8	+28.3	+26.2
51 dBW	+19.0	+17.1	+20.8	+18.9	+22.8	+20.8	+24.7	+22.8	+27.3	+25.2
50 dBW	+18.0	+16.1	+19.8	+17.9	+21.8	+19.8	+23.7	+21.8	+26.3	+24.2
49 dBW	+17.0	+15.1	+18.8	+16.9	+20.8	+18.8	+22.7	+20.8	+25.3	+23.2
48 dBW	+16.0	+14.1	+17.8	+15.9	+19.8	+17.8	+21.7	+19.8	+24.3	+22.2
47 dBW	+15.0	+13.1	+16.8	+14.9	+18.8	+16.8	+20.7	+18.8	+23.3	+21.2
46 dBW	+14.0	+12.1	+15.8	+13.9	+17.8	+15.8	+19.7	+17.8	+22.3	+20.2
45 dBW	+13.0	+11.1	+14.8	+12.9	+16.8	+14.8	+18.7	+16.8	+21.3	+19.2
44 dBW	+12.0	+10.1	+13.8	+11.9	+15.8	+13.8	+17.7	+15.8	+20.3	+18.2
43 dBW	+11.0	+9.1	+12.8	+10.9	+14.8	+12.8	+16.7	+14.8	+19.3	+17.2
42 dBW	+10.0	+8.1	+11.8	+9.9	+13.8	+11.8	+15.7	+13.8	+18.3	+16.2
41 dBW	+9.0	+7.1	+10.8	+8.9	+12.8	+10.8	+14.7	+12.8	+17.3	+15.2
40 dBW	+8.0	+6.1	+9.8	+7.9	+11.8	+9.8	+13.7	+11.8	+16.3	+14.2
39 dBW	+7.0	+5.1	+8.8	+6.9	+10.8	+8.8	+12.7	+10.8	+15.3	+13.2
38 dBW	+6.0	+4.1	+7.8	+5.9	+9.8	+7.8	+11.7	+9.8	+14.3	+12.2
37 dBW	+5.0	+3.1	+6.8	+4.9	+8.8	+6.8	+10.7	+8.8	+13.3	+11.2
36 dBW	+4.0	+2.1	+5.8	+3.9	+7.8	+5.8	+9.7	+7.8	+12.3	+10.2
35 dBW	+3.0	+1.1	+4.8	+3.8	+6.8	+4.8	+8.7	+6.8	+11.3	+9.2
34 dBW	+2.0	+0.1	+3.8	+2.8	+5.8	+3.8	+7.7	+5.8	+10.3	+8.2
33 dBW	+1.0	-0.9	+2.8	+1.8	+4.8	+2.8	+6.7	+4.8	+9.3	+7.2
32 dBW	0.0	-1.9	+1.8	+0.8	+3.8	+1.8	+5.7	+3.8	+8.3	+6.2
31 dBW	-1.0	-2.9	+0.8	-0.2	+2.8	+0.8	+4.7	+2.8	+7.3	+5.2
30 dBW	-2.0	-3.9	-0.2	-1.2	+1.8	-0.2	+3.7	+1.8	+6.3	+4.2
29 dBW	-3.0	-4.9	1.2	-2.2	+0.8	-1.2	+2.7	+0.8	+5.3	+3.2
28 dBW	-4.0	-5.9	-2.2	-3.2	-0.2	-2.2	+3.7	-0.2	+4.3	+2.2
27 dBW	-5.0	-6.9	-3.2	-4.2	-1.2	-3.2	+2.7	-1.2	+3.3	+1.2
26 dBW	-6.0	-7.9	-4.2	-5.2	-2.2	-4.2	+1.7	-2.2	+2.3	+0.2

Antenna Size:	.6m 2 feet		1.2m 4 feet		1.8m 6 feet		2.4m 8 feet		3m 10 feet	
LNB N.T.:	2.45	3.45	2.45	3.45	2.45	3.45	2.45	3.45	2.45	3.45
LNB N.F.:	220	350	220	350	220	350	220	350	220	350
EIRP Level:										
55 dBW	+6.7	+4.9	+12.7	+10.9	+16.3	+14.4	+18.8	+16.9	+20.7	+18.8
54 dBW	+5.7	+3.9	+11.7	+9.9	+15.3	+13.4	+17.8	+15.9	+19.7	+17.8
53 dBW	+4.7	+2.9	+10.7	+8.9	+14.3	+12.4	+16.8	+14.9	+18.7	+16.8
52 dBW	+3.7	+1.9	+9.7	+7.9	+13.3	+11.4	+15.8	+13.9	+17.7	+15.8
51 dBW	+2.7	+0.9	+8.7	+6.9	+12.3	+10.4	+14.8	+12.9	+16.7	+14.8
50 dBW	+1.7	-0.1	+7.7	+5.9	+11.3	+9.4	+13.8	+11.9	+15.7	+13.8
49 dBW	+0.7	-1.1	+6.7	+4.9	+10.3	+8.4	+12.8	+10.9	+14.7	+12.8
48 dBW	-0.3	-2.1	+5.7	+3.9	+9.3	+7.4	+11.8	+9.9	+13.7	+11.8
47 dBW	-1.3	-3.1	+4.7	+2.9	+8.3	+6.4	+10.8	+8.9	+12.7	+10.8
46 dBW	-2.3	-4.1	+3.7	+1.9	+7.3	+5.4	+9.8	+7.9	+11.7	+9.8
45 dBW	-3.3	-5.1	+2.7	+0.9	+6.3	+4.4	+8.8	+6.9	+10.7	+8.8
44 dBW	-4.3	-6.1	+1.7	-0.1	+5.3	+3.4	+7.8	+5.9	+9.7	+7.8
43 dBW	-5.3	-7.1	+0.7	-1.1	+4.3	+2.4	+6.8	+4.9	+8.7	+6.8
42 dBW	-6.3		-0.3	-2.1	+3.3	+1.4	+5.8	+4.8	+7.7	+5.8
41 dBW	-7.3		-1.3	-3.1	+2.3	+0.4	+4.8	+3.8	+6.7	+4.8
40 dBW			-2.3	-4.1	+1.3	-0.6	+3.8	+2.8	+5.7	+3.8
39 dBW			-3.3	-5.1	+0.3	-1.6	+2.8	+1.8	+4.7	+2.8
38 dBW			-4.3	-6.1	-0.7	-2.6	+1.8	+0.8	+3.7	+1.8
37 dBW			-5.3	-7.1	-1.7	-3.6	+0.8	-0.2	+2.7	+0.8
36 dBW			-6.3		-2.7	-4.6	-0.2	-1.2	+1.7	-0.2
35 dBW			-7.3		-3.7	-5.6	-1.2	-2.2	+0.7	-1.8
34 dBW					-4.7	-6.6	-2.2	-3.2	-0.3	-2.8
33 dBW					-5.7	-7.6	-3.2	-4.2	-1.3	-3.8
32 dBW					-6.7		-4.2	-5.2	-2.3	-4.8
31 dBW					-7.7		-5.2	-6.2	-3.3	-5.8
30 dBW							-6.2	-7.2	-4.3	-6.8

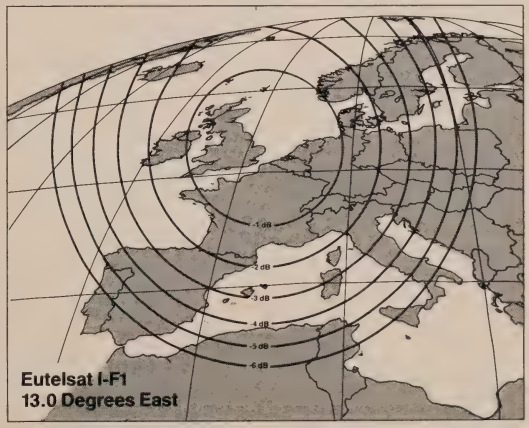
Table 1. Ku-band Margin-above-threshold Chart



A minimum EIRP of 41 dBW at the -4 dB contour of the west spot beam is specified for the lifetime of the satellite.



A minimum EIRP of 41 dBW at the -4 dB contour of the east spot beam is specified for the lifetime of the satelllite.



A minimum EIRP of 41 dBW at the -4 dB contour of the west spot beam is specified for the lifetime of the satellite.

European Cable Programming

EUTELSAT I-F1 (13.0 Degrees E)

Tr. #	Beam	Service	BW☆	Frequency	Video Pol.	Standard	Descrambler Required?	Audio Format	Video Deviation	Audio Deviation	Audio Pre-emphasis	Beam-Edge EIRP
1	West Spot	**Radio Televisione Italiana** —Italy	36	10.9910 GHz	[H]	PAL	No	6.6 MHz S/C	25 MHz	N/A	N/A	41 dBW
2	East Spot	**3-Sat** —Germany	36	11.0550 GHz	[H]	PAL	Yes ▲	Sound-in-sync	25 MHz	—	—	41 dBW
3	West Spot	**Olympus TV** —Holland	30	11.1750 GHz	[H]	PAL	No	6.6 MHz S/C	20 MHz	50 kHz	50 μs	41 dBW
4	West Spot	**TV-5** —France	36	11.4910 GHz	[H]	SECAM	No	6.65 MHz S/C	25 MHz	75 kHz	△	41 dBW
4	West Spot	**New World Channel** —Norway	36	11.4720 GHz	[H]	SECAM	No	6.65 MHz S/C	25 MHz	75 kHz	△	41 dBW
4	West Spot	**WorldNet**—US	36	11.4910 GHz	[H]	PAL	No	6.65 MHz S/C	25 MHz	75 kHz	△	41 dBW
6	West Spot	**SkyChannel** —UK	27	11.6500 GHz	[H]	PAL	Yes ★	6.65 MHz mono; 7.02/7.20 stereo S/C	16 MHz	50 kHz	50 μs	41 dBW
7	West Spot	**TeleClub** —Switzerland	36	10.99167 GHz	[V]	PAL	No	6.5 MHz S/C	25 MHz	75 kHz	75 μs	41 dBW
8	East Spot	**RTL-Plus** —Luxembourg	t.b.a.									
9	West Spot	**FilmNet/ATN** —Belgium	30	11.1403 GHz	[H]	PAL	No	6.65 MHz S/C	19 MHz	75 kHz	△	41 dBW
10	West Spot	**Sat-1**—Germany	36	11.5070 GHz	[V]	PAL	Yes ▲	Sound-in sync ▲	25 MHz	—	—	41 dBW
12	West Spot	**Music Box**—UK	36	11.6740 GHz	[V]	PAL	No	6.65 mono; 7.02/7.20 stereo S/C	25 MHz	50 kHz	50 μs	41 dBW

EUTELSAT I-F2 (7.0 Degrees E)

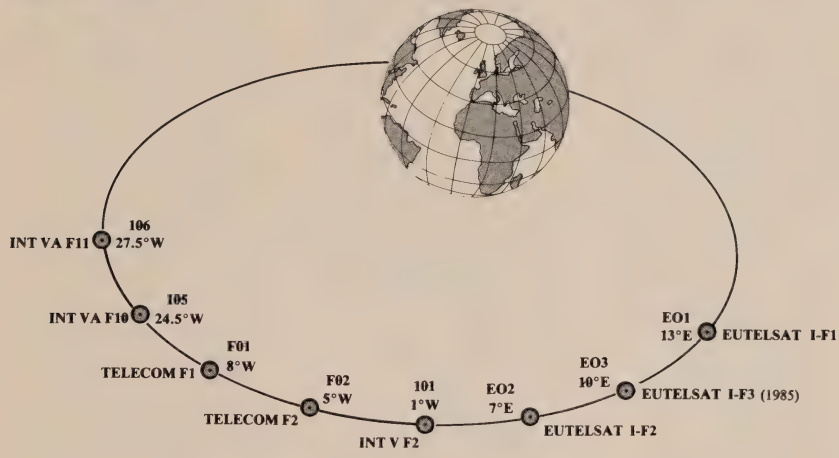
5	West Spot	**SVT-1** —Sweden	—	11.648 GHz	—	—	Yes	—	—	—	—	—
5	West Spot	**SVT-2** —Sweden	—	11.635 GHz	—	—	Yes	—	—	—	—	—
6	West Spot	**NRK TV Norge** —Norway	36	11.6760 GHz	[H]	C-MAC	Yes ♦	—	—	—	—	42 dBW
3	Eurobeam	**Eurovision (EBU)**	36	11.1420 GHz	[H]	PAL	Yes ◊	Sound-in-sync ◊	—	—	—	36 dBW
9	Eurobeam	**Eurovision (EBU)**	36	11.1420 GHz	[V]	PAL	Yes ◊	Sound-in-sync ◊	—	—	—	36 dBW

INTELSAT VA F11 (27.5 Degrees W)

1	West Spot	**Premiere**—UK	30	11.0150 GHz	[H]	PAL	No	6.6 MHz S/C	20 MHz	50 kHz	50 μs	40 dBW
1	West Spot	**The Children's Channel**—UK	30	11.0150 GHz	[H]	PAL	No	6.6 MHz S/C	20 MHz	50 kHz	50 μs	40 dBW
3	West Spot	**Screen Sport**—UK	30	11.1350 GHz	[H]	PAL	No	6.6 MHz S/C	20 MHz	50 kHz	50 μs	40 dBW
4	West Spot	**MirrorVision**—UK	30	11.1750 GHz	[H]	PAL	No	6.6 MHz S/C	20 MHz	50 kHz	50 μs	39 dBW
?	East Spot	**Cable News Network**—US	30	t.b.a.	[V]	PAL						

Video and audio encoded via the C-MAC video standard.
☆ in MHz
♦ Uses the EBU/BBC sound-in-sync encoding system. Video is unencrypted.
Services employing the following scrambling systems have announced plans to discontinue scrambling in the near future.
★ Uses the Oak/Racal video scrambling system. Audio is clear.
▲ Uses the Standard Electric Lorentz (SEL) PCM2 sound-in-sync encoding system. Video is unencrypted.
◊ Uses the RTC Discret video scrambling system. Audio is clear.
△ = CCITT audio standard.
t.b.a. = to be announced.

European Cable Services



I = INTELSAT (INT)
E = EUTELSAT
F = TELECOM (FRANCE)

ID. NO.	SATELLITE	TR. #	BEAM	SERVICE
I06	Int. VA F11	1	West Spot	The Children's Channel
I06	Int. VA F11	3	West Spot	Screen Sport
I05	Int. VA F10	7	East Spot	WorldNet (U.S.)
E02	Eutelsat I-F2	9	Eurobeam	European Broadcast Union (EBU) Eurovision News
E01	Eutelsat I-F1	2	East Spot	3-Sat (Germany)
E01	Eutelsat I-F1	4	West Spot	TV-5 (France)
E01	Eutelsat I-F1	4	West Spot	New World Channel (Norway)
E01	Eutelsat I-F1	4	West Spot	WorldNet (U.S.)
E01	Eutelsat I-F1	6	West Spot	MirrorVision (U.K.)
E01	Eutelsat I-F1	10	West Spot	Sat-1 (Germany)
E01	Eutelsat I-F1	12	West Spot	Music Box (U.K.)

The following Ku-band satellite program guide represents a typical satellite TV schedule for 10 European cable and broadcast TV services. While *Satellite World* makes every attempt to keep the program listings as current as possible, the reader should be aware that some television networks may realign their programming schedules by inserting sports events, specials, miniseries, or new programs, often without prior notice.

Programming times are listed in GMT; each program day begins at 0000 hours.

Ten European 11-GHz satellite TV services are listed in this month's European Ku-band Satellite TV guide. Additional program schedules for other European cable and broadcast TV channels will be added in the months ahead.

EUROPEAN CABLE PROGRAMMING

All times are Greenwich Meridian time

SUNDAY

0000 GMT

E01 10 /13.0°E Nachrichten: Late news.
E01 2 /13.0°E 3 SAT - Nachrichten

0010 GMT

E01 10 /13.0°E Spielfilm: Feature film.

0145 GMT

E01 10 /13.0°E Close

0600 GMT

E01 12 /13.0°E Gaz Bag: Gaz hosts.
E01 4 /13.0°E Jimmy Swaggart: Evangelical program in French.
E01 6 /13.0°E Fun Factory: Children's programming.

0700 GMT

E01 12 /13.0°E First Sight: The latest videos on Music Box.
E01 4 /13.0°E Robert Schuller: Evangelical program.
I06 1 /27.5°W Cartoon Time

0800 GMT

E01 12 /13.0°E Sunie and Gary
E01 4 /13.0°E Praise the Lord: Evangelical program with Paul Crouch.
I06 1 /27.5°W Drama Double Bill: Dramatic entertainment.

0900 GMT

E01 12 /13.0°E 60 Minute Mix: Martin hosts.
I06 1 /27.5°W Quiz Olympics

1000 GMT

E01 12 /13.0°E The Special OR Diana - Sounds Alive
E01 4 /13.0°E Praise the Lord: Evangelical program with Jim Bakker.

1005 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1100 GMT

E01 12 /13.0°E Hear and Now: Julie hosts.
E01 4 /13.0°E New World Forum: Evangelical program mainly in English with Hans Bratterud.
E01 6 /13.0°E SPORTS-American Football: Some of the best matches from last season's USFL.
I06 1 /27.5°W Cartoon Time

1200 GMT

E01 10 /13.0°E Sonntagsmagazin: Magazine or film.
E01 12 /13.0°E Gaz Bag: Gaz hosts.
I06 1 /27.5°W Drama Double Bill: Dramatic entertainment.

1215 GMT

E01 6 /13.0°E Different Timbres: Caribbean sounds.

1230 GMT

E01 6 /13.0°E SPORTS-World Games: Sports special.

1300 GMT

E01 10 /13.0°E Unterhaltungsserie: Light Entertainment.
E01 12 /13.0°E First Sight: The latest videos on Music Box.
I06 1 /27.5°W Quiz Olympics

1330 GMT

E01 10 /13.0°E Solid Gold: Pop video.

1400 GMT

E01 10 /13.0°E Familienserie: Family serial.
E01 12 /13.0°E Sunie and Gary
E01 6 /13.0°E Sky Trax: Pop music show.

1445 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1500 GMT

E01 10 /13.0°E Kinder-und Familiensendung: Mixed entertainment.
E01 12 /13.0°E 60 Minute Mix: Martin hosts.
I06 1 /27.5°W Close

1530 GMT

E01 10 /13.0°E Musicbox: Pop video.
E01 6 /13.0°E Sky Trax: Pop music show.

1600 GMT

E01 12 /13.0°E The Special OR Diana - Sounds Alive
E01 4 /13.0°E Antennae-2 news-feed from Paris to TV3-Catalunya
I06 3 /27.5°W SPORTS-News and Today's Timetable

1610 GMT

I06 3 /27.5°W SPORTS-Master Games

1630 GMT

E01 10 /13.0°E Zeichentrickfilme: Cartoon.
E01 6 /13.0°E Inspector Gadget: Cartoon series.

1700 GMT

E01 10 /13.0°E Serien: Film series.
E01 12 /13.0°E Hear and Now: Julie hosts.
E01 6 /13.0°E Fantasy Island: Fantasy, adventure series.

1710 GMT

I06 3 /27.5°W SPORTS-The Main Event

1750 GMT

E01 6 /13.0°E Family Theatre: Drama series.

1800 GMT

E01 10 /13.0°E Regionales Fenster: Regional News.
E01 12 /13.0°E Gaz Bag: Gaz hosts.
E01 2 /13.0°E Unterhaltung
E01 4 /13.0°E Thirty Million Friends: Animal magazine

1825 GMT

I06 3 /27.5°W SPORTS-World Wide Wrestling

1830 GMT

E01 10 /13.0°E Aktuelles Quiz: National News.
E01 4 /13.0°E Movie (Telefilm)

1840 GMT

E01 6 /13.0°E Film

1845 GMT

E01 10 /13.0°E Spielfilm: Feature film.

1900 GMT

E01 12 /13.0°E First Sight: The latest videos on Music Box.
E01 2 /13.0°E Heute

1915 GMT

E01 2 /13.0°E Sonntagskino

1920 GMT

I06 3 /27.5°W SPORTS-The Mid-Evening News

1930 GMT

I06 3 /27.5°W SPORTS-Pro Football from the USFL

2000 GMT

E01 12 /13.0°E Sunie and Gary
E01 4 /13.0°E Ideas and Men: Documentary series.

2020 GMT

E01 6 /13.0°E The Tommy Hunter Show: Country and Western musical variety series.

2030 GMT

E01 10 /13.0°E Filmserie: Film series.

2100 GMT

E01 10 /13.0°E Bunte-Rendezvous: Magazine program.
E01 12 /13.0°E 60 Minute Mix: Martin hosts.
E01 2 /13.0°E Erinnem Sie Sich
E01 4 /13.0°E The News (Journal Televise)

2115 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

2130 GMT

E01 10 /13.0°E News, Freizeit, Sport: News, Arts and Sports.

2150 GMT

I06 3 /27.5°W SPORTS-Speedway

2200 GMT

E01 12 /13.0°E The Special OR Diana - Sounds Alive

2215 GMT

E01 10 /13.0°E Spielfilm: Feature film.
E01 2 /13.0°E Sonderangebot

2220 GMT

E01 6 /13.0°E Close

2250 GMT

I06 3 /27.5°W SPORTS-Late Night News

2300 GMT

E01 12 /13.0°E Hear and Now: Julie hosts.
I06 3 /27.5°W SPORTS-Closedown

2315 GMT

E01 2 /13.0°E 3 SAT - Nachrichten

MONDAY

0000 GMT

E01 10 /13.0°E Nachrichten: Late news.

0010 GMT

E01 10 /13.0°E Close

0600 GMT

E01 12 /13.0°E Sounds and Vision

0700 GMT

E01 12 /13.0°E Hear and Now
I06 1 /27.5°W The Early Show

0800 GMT

E01 12 /13.0°E Videopix: Video request show.

0900 GMT

E01 12 /13.0°E Gaz Bag: Gaz hosts.
I06 1 /27.5°W Jack-in-the-Box: Stories and other activities for children under five years old.

0930 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1000 GMT

E01 12 /13.0°E Sunie - Hits the Screen
E01 4 /13.0°E Praise the Lord: Evangelical program with Jim Bakker.

1015 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1100 GMT

E01 12 /13.0°E Diana - Sounds Alive
E01 4 /13.0°E Antennae-2 News-feed from Paris to TV3-Catalunya
E01 6 /13.0°E Sky Trax: Pop music show.
E02 9 /10.0°E Eurovision Brussels: European News Unilateral Exchanges.
I06 1 /27.5°W The Early Show

1200 GMT

E01 12 /13.0°E Sounds and Vision
E01 4 /13.0°E Menu and Worldnet Opening
E01 6 /13.0°E Mountain Habitat: Documentary.
I05 7 /24.5°W Menu and Worldnet Opening

1205 GMT

E01 4 /13.0°E America Today
I05 7 /24.5°W America Today

1215 GMT

E01 6 /13.0°E Charlie Chaplin

1230 GMT

E01 4 /13.0°E English American Style
I05 7 /24.5°W English American Style

1235 GMT

E01 4 /13.0°E Cine Showcase
E01 6 /13.0°E The Down Under Show: Documentary.
I05 7 /24.5°W Cine Showcase

EUROPEAN CABLE PROGRAMMING

All times are Greenwich Meridian time

1300 GMT

E01 12 /13.0°E **Hear and Now:** Julie hosts.
I06 1 /27.5°W **Jack-in-the-Box:** Stories and other activities for children under five years old.

1305 GMT

E01 4 /13.0°E **Science World**
I05 7 /24.5°W **Science World**

1320 GMT

E01 4 /13.0°E **Broadcast, Cable Sign Off**
I05 7 /24.5°W **Broadcast, Cable Sign Off**

1325 GMT

E01 4 /13.0°E **This Week With David Brinkley**
I05 7 /24.5°W **This Week With David Brinkley**

1330 GMT

E01 10 /13.0°E **Solid Gold:** Pop video.
E01 6 /13.0°E **Swiss Family Robinson:** Family, adventure series.

1400 GMT

E01 10 /13.0°E **Familienserie:** Family serial.
E01 12 /13.0°E **Videopix:** Video request show.
E01 4 /13.0°E **Tomorrow's Menu and Sign Off**
E01 6 /13.0°E **Sky Trax:** Pop music show.
I05 7 /24.5°W **Tomorrow Menu and Sign Off**

1445 GMT

E01 6 /13.0°E **Sky Trax:** Pop music show.

1500 GMT

E01 10 /13.0°E **Kindersendung:** Children's Programming.
E01 12 /13.0°E **Gaz Bag:** Gaz hosts.
I06 1 /27.5°W **Close**

1530 GMT

E01 10 /13.0°E **Musicbox:** Pop video.
E01 6 /13.0°E **Sky Trax:** Pop music show.

1600 GMT

E01 12 /13.0°E **Sunie - Hits the Screen**
E01 4 /13.0°E **Antennae-2 Newsfeed from Paris to TV3-Catalunya**
E02 9 /10.0°E **Eurovision Brussels:** European News Unilateral Exchanges.

1630 GMT

E01 10 /13.0°E **Zeichentrickfilme:** Cartoon.
E01 6 /13.0°E **Mr. Ed:** Comedy series.

1700 GMT

E01 10 /13.0°E **Serien:** Western series.
E01 12 /13.0°E **Diana - Sounds Alive**
E01 6 /13.0°E **The Double Life of Henry Phyfe:** Comedy, adventure series.
I06 3 /27.5°W **SPORTS-News**

1710 GMT

I06 3 /27.5°W **SPORTS-The First Half**

1730 GMT

E01 10 /13.0°E **Regionales Fenster:** Regional News.
E01 6 /13.0°E **Star Theatre**

1800 GMT

E01 12 /13.0°E **Sounds and Vision:** Gary hosts.
E01 2 /13.0°E **Kinder**
E01 4 /13.0°E **Champs-Elysees:** Variety show.

1820 GMT

E01 6 /13.0°E **Vega$:** Action, adventure series.

1830 GMT

E01 10 /13.0°E **Aktuelles Quiz:** National News.

1845 GMT

E01 10 /13.0°E **Krimi Western:** Film series.

1900 GMT

E01 12 /13.0°E **Hear and Now:** Julie hosts.
E01 2 /13.0°E **Heute**

1910 GMT

E01 4 /13.0°E **The Enemy of Death:** Series.
E01 6 /13.0°E **The Untouchables:** Crime series.

1930 GMT

E01 2 /13.0°E **Sport report**
I06 3 /27.5°W **SPORTS-The Mid-Evening News**

1945 GMT

I06 3 /27.5°W **SPORTS-The Main Event**

2000 GMT

E01 12 /13.0°E **Videopix:** Video request show.

2005 GMT

E01 4 /13.0°E **Adventure Notebook (Les Carnets de L'Aventure):** Magazine.
E01 6 /13.0°E **SPORTS-VFL Australian Rules Football**

2030 GMT

E01 10 /13.0°E **Wirtschaftsmagazin:** Economy Magazine.

2100 GMT

E01 10 /13.0°E **Familienserie:** Family serial.
E01 12 /13.0°E **Gaz Bag:** Gaz hosts.
E01 4 /13.0°E **The News (Journal Televise)**
E01 6 /13.0°E **Sky Trax:** Pop music show.

2115 GMT

E01 2 /13.0°E **Zeit im Bild**

2130 GMT

E01 10 /13.0°E **News, Freizeit, Sport:** News, Arts and Sports.

2140 GMT

E01 4 /13.0°E **The Hour of Power:** With Robert Schuller.

2145 GMT

E01 2 /13.0°E **Cinema International**
I06 3 /27.5°W **SPORTS-Professional Karate**

2200 GMT

E01 12 /13.0°E **Sunie - Hits the Screen**

2205 GMT

E01 6 /13.0°E **Close**

2215 GMT

E01 10 /13.0°E **Spielfilm:** Feature film.

2250 GMT

I06 3 /27.5°W **SPORTS-Late Night News**

2300 GMT

E01 12 /13.0°E **Diana - Sounds Alive**
I06 3 /27.5°W **SPORTS-Closedown**

2305 GMT

E01 2 /13.0°E **Kennwort: Kino**

2330 GMT

E01 2 /13.0°E **3 SAT - Nachrichten**

TUESDAY

0000 GMT

E01 10 /13.0°E **Nachrichten:** Late news.

0010 GMT

E01 10 /13.0°E **Close**

0600 GMT

E01 12 /13.0°E **Sit Tight:** Simon brings you the Fan Club Spot plus the Record Round Up with all the latest releases on vinyl for the week.

0700 GMT

E01 12 /13.0°E **Sunie - Hits the Screen**
I06 1 /27.5°W **The Early Show**

0800 GMT

E01 12 /13.0°E **Sound and Vision:** Gary hosts.

0900 GMT

E01 12 /13.0°E **The Eurochart:** All the latest hits from the charts of 16 European countries.
I06 1 /27.5°W **Jack-in-the-Box:** Stories and other activities for children under five years old.

0930 GMT

E01 6 /13.0°E **Sky Trax:** Pop music show.

1000 GMT

E01 12 /13.0°E **Diana - Sounds Alive**
E01 4 /13.0°E **Praise the Lord:** Evangelical program with Jim Bakker.

1015 GMT

E01 6 /13.0°E **Sky Trax:** Pop music show.

1100 GMT

E01 12 /13.0°E **60 Minute Mix:** Martin hosts.
E01 6 /13.0°E **Sky Trax:** Pop music show.
E02 9 /10.0°E **Eurovision Brussels:** European News Unilateral Exchanges.
I06 1 /27.5°W **The Early Show**

1200 GMT

E01 12 /13.0°E **Sit Tight:** Simon brings you the Fan Club Spot plus the Record Round Up with all the latest releases on vinyl for the week.
E01 4 /13.0°E **Menu and Worldnet Opening**
E01 6 /13.0°E **Mountain Habitat:** Documentary.
I05 7 /24.5°W **Menu and Worldnet Opening**

1205 GMT

E01 4 /13.0°E **America Today**
I05 7 /24.5°W **America Today**

1215 GMT

E01 6 /13.0°E **Charlie Chaplin**

1230 GMT

E01 4 /13.0°E **English American Style**
I05 7 /24.5°W **English American Style**

1235 GMT

E01 4 /13.0°E **Euronet One on One**
E01 6 /13.0°E **The Down Under Show:** Documentary.
I05 7 /24.5°W **Euronet One on One**

1300 GMT

E01 12 /13.0°E **Sunie - Hits the Screen**
I06 1 /27.5°W **Jack-in-the-Box:** Stories and other activities for children under five years old.

1330 GMT

E01 10 /13.0°E **Solid Gold:** Pop video.
E01 6 /13.0°E **Swiss Family Robinson:** Family, adventure series.

1335 GMT

E01 4 /13.0°E **Broadcast, Cable Sign Off**
I05 7 /24.5°W **Broadcast, Cable Sign Off**

1340 GMT

E01 4 /13.0°E **ABC World News**
I05 7 /24.5°W **ABC World News**

1400 GMT

E01 10 /13.0°E **Familienserie:** Family serial.
E01 12 /13.0°E **Sound and Vision:** Gary hosts.
E01 4 /13.0°E **Tomorrow's Menu and Sign Off**
E01 6 /13.0°E **Sky Trax:** Pop music show.
I05 7 /24.5°W **Tomorrow Menu and Sign Off**

1445 GMT

E01 6 /13.0°E **Sky Trax:** Pop music show.

EUROPEAN CABLE PROGRAMMING

All times are Greenwich Meridian time

1500 GMT

E01 10 /13.0°E Kindersendung: Children's Programming.
E01 12 /13.0°E The Eurochart: All the latest hits from the charts of 16 European countries.
I06 1 /27.5°W Close

1530 GMT

E01 10 /13.0°E Musicbox: Pop video.
E01 6 /13.0°E Sky Trax: Pop music show.

1600 GMT

E01 12 /13.0°E Diana - Sounds Alive
E02 9 /10.0°E Eurovision Brussels: European News Unilateral Exchanges.

1630 GMT

E01 10 /13.0°E Zeichentrickfilme: Cartoon.
E01 6 /13.0°E Mr. Ed: Comedy series.

1700 GMT

E01 10 /13.0°E Serien: Western series.
E01 12 /13.0°E 60 Minute Mix: Martin hosts.
E01 6 /13.0°E The Double Life of Henry Phyfe: Comedy, adventure series.
I06 3 /27.5°W SPORTS-News

1710 GMT

I06 3 /27.5°W SPORTS-The First Half

1730 GMT

E01 6 /13.0°E Charlie's Angels: Action, adventure series.

1800 GMT

E01 10 /13.0°E Regionales Fenster: Regional News.
E01 12 /13.0°E Sit Tight: Simon brings you the Fan Club Spot plus the Record Round Up with all the latest releases on vinyl for the week.
E01 2 /13.0°E Bilder Aus Der

1820 GMT

E01 6 /13.0°E Learned Friends: Drama series.

1830 GMT

E01 10 /13.0°E Aktuelles Quiz: National News.

1845 GMT

E01 10 /13.0°E Spielfilm: Film series.

1900 GMT

E01 12 /13.0°E Sunie - Hits the Screen
E01 2 /13.0°E Heute

1910 GMT

E01 6 /13.0°E Roving Report: Current affairs series.

1930 GMT

E01 2 /13.0°E Menschen und Machte
I06 3 /27.5°W SPORTS-The Mid-Evening News

1940 GMT

E01 6 /13.0°E SPORTS-American College Basketball

2000 GMT

E01 12 /13.0°E Sound and Vision: Gary hosts.

2030 GMT

E01 10 /13.0°E Kulturmagazin, Unterhaltung: Arts and Entertainment Program.
E01 2 /13.0°E Familienserie

2040 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

2100 GMT

E01 12 /13.0°E The Eurochart: All the latest hits from the charts of 16 European countries.
E01 4 /13.0°E The News (Journal Televise)
I06 3 /27.5°W SPORTS-The Main Event

2115 GMT

E01 2 /13.0°E Zeit im Bild

2130 GMT

E01 10 /13.0°E News, Freizeit, Sport: News, Arts and Sports.

2145 GMT

E01 2 /13.0°E Club 2

2200 GMT

E01 12 /13.0°E Diana - Sounds Alive
I06 3 /27.5°W SPORTS-Tennis Magazine

2215 GMT

E01 10 /13.0°E Spielfilm: Feature film.

2230 GMT

E01 6 /13.0°E Close
I06 3 /27.5°W SPORTS-Spotlight on Sport

2250 GMT

I06 3 /27.5°W SPORTS-Late Night News

2300 GMT

E01 12 /13.0°E 60 Minute Mix: Martin hosts.
I06 3 /27.5°W SPORTS-Closedown

2310 GMT

E01 2 /13.0°E 3 SAT - Nachrichten

WEDNESDAY

0000 GMT

E01 10 /13.0°E Nachrichten: Late news.

0010 GMT

E01 10 /13.0°E Close

0700 GMT

E01 12 /13.0°E Sit Tight: Featuring Simon Potter Down Under the Australian section playing the latest musical talent to emerge from the Antipodes.
I06 1 /27.5°W The Early Show

0800 GMT

E01 12 /13.0°E Diana - Sounds Alive

0900 GMT

E01 12 /13.0°E A-Z of Pop: Favourites from artists with the same initial letter.
I06 1 /27.5°W Jack-in-the-Box: Stories and other activities for children under five years old.

0930 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1000 GMT

E01 12 /13.0°E Chart Attack: Music Box UK Top 40 hits.

1015 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1100 GMT

E01 12 /13.0°E Gaz Bag: Gaz hosts.
E01 4 /13.0°E Antennae-2 Newsfeed from Paris to TV3-Catalunya
E01 6 /13.0°E Sky Trax: Pop music show.
E02 9 /10.0°E Eurovision Brussels: European News Unilateral Exchanges.
I06 1 /27.5°W The Early Show

1200 GMT

E01 12 /13.0°E Hear and Now: Julie hosts.
E01 4 /13.0°E Menu and Worldnet Opening
E01 6 /13.0°E Mountain Habitat: Documentary.
I05 7 /24.5°W Menu and Worldnet Opening

1205 GMT

E01 4 /13.0°E America Today
I05 7 /24.5°W America Today

1215 GMT

E01 6 /13.0°E Charlie Chaplin: Comedy film.

1230 GMT

E01 4 /13.0°E English American Style
I05 7 /24.5°W English American Style

1235 GMT

E01 4 /13.0°E Arts America (First Wednesday) or Departmental Dialogue
E01 6 /13.0°E The Down Under Show: Documentary.
I05 7 /24.5°W Arts America (First Wednesday) or Departmental Dialogue

1300 GMT

E01 12 /13.0°E Sit Tight: Featuring Simon Potter Down Under the Australian section playing the latest musical talent to emerge from the Antipodes.
I06 1 /27.5°W Jack-in-the-Box: Stories and other activities for children under five years old.

1330 GMT

E01 10 /13.0°E Solid Gold: Pop video.
E01 6 /13.0°E : The Mudspinner

1335 GMT

E01 4 /13.0°E Broadcast, Cable Sign Off
I05 7 /24.5°W Broadcast, Cable Sign Off

1340 GMT

E01 4 /13.0°E ABC World News
I05 7 /24.5°W ABC World News

1400 GMT

E01 10 /13.0°E Familienserie: Family serial.
E01 12 /13.0°E Diana - Sounds Alive
E01 4 /13.0°E Tomorrow's Menu and Sign Off
E01 6 /13.0°E Sky Trax: Pop music show.
I05 7 /24.5°W Tomorrow Menu and Sign Off

1445 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1500 GMT

E01 10 /13.0°E Fur Grob und Klein: Children's Programming.
E01 12 /13.0°E A-Z of Pop: Favourites from artists with the same initial letter.
I06 1 /27.5°W Close

1530 GMT

E01 10 /13.0°E Musicbox: Pop video.
E01 6 /13.0°E Sky Trax: Pop music show.

1600 GMT

E01 12 /13.0°E Chart Attack: Music Box UK Top 40 hits.
E01 4 /13.0°E Antennae-2 newsfeed from Paris to TV3-Catalunya
E02 9 /10.0°E Eurovision Brussels: European News Unilateral Exchanges.

1630 GMT

E01 10 /13.0°E Zeichentrickfilme: Cartoon.
E01 6 /13.0°E Mr. Ed: Comedy series.

1700 GMT

E01 10 /13.0°E Serien: Western series.
E01 12 /13.0°E Gaz Bag: Gaz hosts.
E01 6 /13.0°E The Double Life of Henry Phyfe: Comedy, adventure series.
I06 3 /27.5°W SPORTS-News

1710 GMT

I06 3 /27.5°W SPORTS-Speedway

1730 GMT

E01 6 /13.0°E Pathfinders: War, drama series.

1800 GMT

E01 10 /13.0°E Regionales Fenster: Regional News.
E01 12 /13.0°E Hear and Now: Julie hosts.
E01 2 /13.0°E Kinder
E01 4 /13.0°E The Good Life: Variety show.

EUROPEAN CABLE PROGRAMMING

All times are Greenwich Meridian time

1810 GMT

I06 3 /27.5°W SPORTS-Ten Pin Bowling

1825 GMT

E01 6 /13.0°E Film

1830 GMT

E01 10 /13.0°E Aktuelles Quiz: National News.

1845 GMT

E01 10 /13.0°E Quiz

1900 GMT

E01 12 /13.0°E Sit Tight: Featuring Simon Potter Down Under the Australian section playing the latest musical talent to emerge from the Antipodes.
E01 2 /13.0°E Heute
E01 4 /13.0°E Coffee Break

1910 GMT

E01 10 /13.0°E Sport

1925 GMT

E01 4 /13.0°E History News: Magazine.

1930 GMT

E01 2 /13.0°E Unterhaltung
I06 3 /27.5°W SPORTS-The Mid-Evening News

1945 GMT

I06 3 /27.5°W SPORTS-Australian Rugby League

2000 GMT

E01 10 /13.0°E Offen gesagt, Telekiosk: "Frankly Speaking".
E01 12 /13.0°E Diana - Sounds Alive

2005 GMT

E01 6 /13.0°E SPORTS-International Motor Sports

2030 GMT

E01 10 /13.0°E Familienserie: Love Boat (Family series).

2100 GMT

E01 12 /13.0°E A-Z of Pop: Favourites from artists with the same initial letter.
E01 4 /13.0°E The News (Journal Televise)

2110 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

2120 GMT

I06 3 /27.5°W SPORTS-Turbo

2130 GMT

E01 10 /13.0°E News, Freizeit, Sport: News, Arts and Sports.

2200 GMT

E01 12 /13.0°E Chart Attack: Music Box UK Top 40 hits.

2215 GMT

E01 10 /13.0°E Spielfilm: Feature film.
E01 6 /13.0°E Close

2250 GMT

I06 3 /27.5°W SPORTS-Late Night News

2300 GMT

E01 12 /13.0°E Gaz Bag: Gaz hosts.
I06 3 /27.5°W SPORTS-Closedown

2330 GMT

E01 12 /13.0°E Hear and Now: Julie hosts.

THURSDAY

0000 GMT

E01 10 /13.0°E Nachrichten: Late news.

0010 GMT

E01 10 /13.0°E Close

0600 GMT

E01 12 /13.0°E Hear and Now: Julie hosts.

0700 GMT

E01 12 /13.0°E Simon and Gary or Martin and Gary
I06 1 /27.5°W The Early Show

0800 GMT

E01 12 /13.0°E Euro Tour Guide: Who's touring where and when OR Sunie - Hits the Screen.

0900 GMT

E01 12 /13.0°E Diana - Sounds Alive
I06 1 /27.5°W Jack-in-the-Box: Stories and other activities for children under five years old.

0930 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1000 GMT

E01 12 /13.0°E Musical Chains: Show demonstrating how almost every video ever made is linked to another in some way.
E01 4 /13.0°E Praise the Lord: Evangelical program with Jim Bakker.

1015 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1100 GMT

E01 12 /13.0°E 60 Minute Mix: Martin hosts.
E01 4 /13.0°E Antennae-2 Newsfeed from Paris to TV3-Catalunya
E01 6 /13.0°E Sky Trax: Pop music show.
E02 9 /10.0°E Eurovision Brussels: European News Unilateral Exchanges.
I06 1 /27.5°W The Early Show

1200 GMT

E01 12 /13.0°E Hear and Now: Julie hosts.
E01 4 /13.0°E Menu and Worldnet Opening
E01 6 /13.0°E Mountain Habitat: Documentary.
I05 7 /24.5°W Menu and Worldnet Opening

1205 GMT

E01 4 /13.0°E America Today
I05 7 /24.5°W America Today

1215 GMT

E01 6 /13.0°E Charlie Chaplin: Comedy film.

1230 GMT

E01 4 /13.0°E English American Style
I05 7 /24.5°W English American Style

1235 GMT

E01 4 /13.0°E Euronet Multi-National or Congressional Viewpoint (Last Thursday)
E01 6 /13.0°E The Down Under Show: Documentary.
I05 7 /24.5°W Euronet Multi-National or Congressional Viewpoint (Last Thursday)

1300 GMT

E01 12 /13.0°E Simon and Gary or Martin and Gary
I06 1 /27.5°W Jack-in-the-Box: Stories and other activities for children under five years old.

1330 GMT

E01 10 /13.0°E Solid Gold: Pop video.
E01 6 /13.0°E The Eye Openers: Documentary.

1335 GMT

E01 4 /13.0°E Broadcast, Cable Sign Off
I05 7 /24.5°W Broadcast, Cable Sign Off

1340 GMT

E01 4 /13.0°E ABC World News
I05 7 /24.5°W ABC World News

1400 GMT

E01 10 /13.0°E Familienserie: Family serial.
E01 12 /13.0°E Euro Tour Guide: Who's touring where and when OR Sunie - Hits the Screen.
E01 4 /13.0°E Tomorrow's Menu and Sign Off
E01 6 /13.0°E Sky Trax: Pop music show.
I05 7 /24.5°W Tomorrow Menu and Sign Off

1445 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1500 GMT

E01 10 /13.0°E Fur Kinder und Jugendliche: Children's Programming.
E01 12 /13.0°E Diana - Sounds Alive
I06 1 /27.5°W Close

1530 GMT

E01 10 /13.0°E Musicbox: Pop video.
E01 6 /13.0°E Sky Trax: Pop music show.

1600 GMT

E01 12 /13.0°E Musical Chains: Show demonstrating how almost every video ever made is linked to another in some way.
E01 4 /13.0°E Antennae-2 Newsfeed from Paris to TV3-Catalunya
E02 9 /10.0°E Eurovision Brussels: European News Unilateral Exchanges.

1630 GMT

E01 10 /13.0°E Zeichentrickfilme: Cartoon.
E01 6 /13.0°E Mr. Ed: Comedy series.

1700 GMT

E01 10 /13.0°E Serien: Western series.
E01 12 /13.0°E 60 Minute Mix: Martin hosts.
E01 6 /13.0°E The Double Life of Henry Phyfe: Comedy, adventure series.
I06 3 /27.5°W SPORTS-News

1710 GMT

I06 3 /27.5°W SPORTS-The First Half

1730 GMT

E01 6 /13.0°E Charlie's Angels: Action, adventure series.

1800 GMT

E01 10 /13.0°E Regionales Fenster: Regional News.
E01 12 /13.0°E Hear and Now: Julie hosts.

1820 GMT

E01 6 /13.0°E Learned Friends: Drama series.

1830 GMT

E01 10 /13.0°E Aktuelles Quiz: National News.

1845 GMT

E01 10 /13.0°E Spielfilm: Film series.
E01 4 /13.0°E Sido and Remi: For the young.

1900 GMT

E01 12 /13.0°E Simon and Gary OR Martin and Gary
E01 2 /13.0°E Heute
E01 4 /13.0°E Movie (Telefilm)

1910 GMT

E01 6 /13.0°E The Untouchables: Crime series.

1930 GMT

E01 2 /13.0°E Krimi
I06 3 /27.5°W SPORTS-The Mid-Evening News

2000 GMT

E01 12 /13.0°E Euro Tour Guide: Who's touring where and when OR Sunie - Hits the Screen.
I06 3 /27.5°W SPORTS-Professional Boxing

2005 GMT

E01 6 /13.0°E SPORTS-Sports

2030 GMT

E01 10 /13.0°E Familienserie: Family serial.
E01 2 /13.0°E Wissenschaftl u. bildende

2035 GMT

E01 4 /13.0°E Recipes: With chef, Michel Oliver

EUROPEAN CABLE PROGRAMMING

All times are Greenwich Meridian time

2100 GMT

E01 12 /13.0°E Diana - Sounds Alive
E01 4 /13.0°E The News (Journal Televise)

2115 GMT

E01 2 /13.0°E Zeit im Bild

2130 GMT

E01 10 /13.0°E News, Freizeit, Sport: News, Arts and Sports.
E01 6 /13.0°E Sky Trax: Pop music show.

2145 GMT

E01 2 /13.0°E Rundschau

2150 GMT

I06 3 /27.5°W SPORTS-Irish Night

2200 GMT

E01 12 /13.0°E Musical Chains: Show demonstrating how almost every video ever made is linked to another in some way.

2215 GMT

E01 10 /13.0°E Spielfilm: Feature film.

2230 GMT

E01 2 /13.0°E Kulturpalette

2235 GMT

E01 6 /13.0°E Close

2250 GMT

I06 3 /27.5°W SPORTS-Late Night News

2300 GMT

E01 12 /13.0°E 60 Minute Mix: Martin hosts.
I06 3 /27.5°W SPORTS-Closedown

2330 GMT

E01 2 /13.0°E 3 SAT - Nachrichten

FRIDAY

0000 GMT

E01 10 /13.0°E Nachrichten: Late news.

0010 GMT

E01 10 /13.0°E Close

0600 GMT

E01 12 /13.0°E Julie and Diana

0700 GMT

E01 12 /13.0°E 60 Minute Mix
I06 1 /27.5°W The Early Show

0800 GMT

E01 12 /13.0°E Between the Lines: Sunie takes a lighthearted look at the out-pourings of the music press and checks out the news, reviews, interviews and gossip.

0900 GMT

E01 12 /13.0°E Gaz Bag: Gaz hosts.
I06 1 /27.5°W Jack-in-the-Box: Stories and other activities for children under five years old.

0930 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1000 GMT

E01 12 /13.0°E First Sight: The latest videos on Music Box.
E01 4 /13.0°E Praise the Lord: Evangelical program with Jim Bakker.

1015 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1100 GMT

E01 12 /13.0°E Sound and Vision: Gary hosts.
E01 4 /13.0°E Antennae-2 News-feed from Paris to TV3-Catalunya
E01 6 /13.0°E Sky Trax: Pop music show.
E02 9 /10.0°E Eurovision Brussels: European News Unilateral Exchanges.
I06 1 /27.5°W The Early Show

1200 GMT

E01 12 /13.0°E Julie and Diana
E01 4 /13.0°E Menu and Worldnet Opening
E01 6 /13.0°E Mountain Habitat: Documentary.
I05 7 /24.5°W Menu and Worldnet Opening

1205 GMT

E01 4 /13.0°E America Today
I05 7 /24.5°W America Today

1215 GMT

E01 6 /13.0°E Charlie Chaplin: Comedy film.

1230 GMT

E01 4 /13.0°E English American Style
I05 7 /24.5°W English American Style

1235 GMT

E01 4 /13.0°E American Images
E01 6 /13.0°E The Down Under Show: Documentary.
I05 7 /24.5°W American Images

1300 GMT

E01 12 /13.0°E 60 Minute Mix: Martin hosts.
I06 1 /27.5°W Jack-in-the-Box: Stories and other activities for children under five years old.

1305 GMT

E01 4 /13.0°E Broadcast, Cable Sign Off
I05 7 /24.5°W Broadcast, Cable Sign Off

1310 GMT

I05 7 /24.5°W Business Times

1330 GMT

E01 10 /13.0°E Solid Gold: Pop video.
E01 6 /13.0°E Harpsichord Builder: Documentary

1335 GMT

E01 4 /13.0°E ABC World News

1340 GMT

E01 4 /13.0°E Business Times
I05 7 /24.5°W ABC World News

1400 GMT

E01 10 /13.0°E Familienserie: Family serial.
E01 12 /13.0°E Between the Lines: Sunie takes a lighthearted look at the out-pourings of the music press and checks out the news, reviews, interviews and gossip.
E01 4 /13.0°E Tomorrow's Menu and Sign Off
E01 6 /13.0°E Sky Trax: Pop music show.
I05 7 /24.5°W Tomorrow Menu and Sign Off

1445 GMT

E01 6 /13.0°E Sky Trax

1500 GMT

E01 10 /13.0°E Fur Grob und K'ein: Children's Programming.
E01 12 /13.0°E Gaz Bag: Gaz hosts.
I06 1 /27.5°W Close

1530 GMT

E01 10 /13.0°E Musicbox: Pop video.
E01 6 /13.0°E Sky Trax: Pop music show.

1600 GMT

E01 12 /13.0°E First Sight: The latest videos on Music Box.
E01 4 /13.0°E Antennae-2 news-feed from Paris to TV3-Catalunya
E02 9 /10.0°E Eurovision Brussels: European News Unilateral Exchanges.

1630 GMT

E01 10 /13.0°E Zeichentrickfilme: Cartoon.
E01 6 /13.0°E Mr. Ed: Comedy special.

1700 GMT

E01 10 /13.0°E Serien: Western series.
E01 12 /13.0°E Sound and Vision: Gary hosts.
E01 6 /13.0°E The Double Life of Henry Phyfe: Comedy, adventure series.
I06 3 /27.5°W SPORTS-News

1710 GMT

I06 3 /27.5°W SPORTS-Turbo

1730 GMT

E01 6 /13.0°E Mork and Mindy: Comedy series.

1800 GMT

E01 10 /13.0°E Aktuelles Quiz: National News.
E01 10 /13.0°E Regionales Fenster: Regional News.
E01 12 /13.0°E Julie and Diana
E01 2 /13.0°E Tiere und Natur
E01 4 /13.0°E Program For the Young

1820 GMT

E01 6 /13.0°E Starsky and Hutch: Action, adventure series.

1825 GMT

E01 4 /13.0°E Movie (Telefilm)

1835 GMT

I06 3 /27.5°W SPORTS-World Wide Wrestling

1845 GMT

E01 10 /13.0°E Fraun (Jugend-Unterhaltung): Women's Programming.

1900 GMT

E01 12 /13.0°E 60 Minute Mix: Martin hosts.
E01 2 /13.0°E Heute

1915 GMT

E01 6 /13.0°E The New Candid Camera: Comedy series.

1930 GMT

E01 10 /13.0°E Abenteuer: Science-fiction adventure program.
E01 2 /13.0°E Zur Sache Polit. Magazin
I06 3 /27.5°W SPORTS-The Mid-Evening News

1940 GMT

E01 6 /13.0°E Detective School: Comedy, drama series.

1955 GMT

E01 4 /13.0°E A Mass For Rome (Une Messe Pour Rome): Musical documentary (Documentaire musical).

2000 GMT

E01 12 /13.0°E Between the Lines: Sunie takes a lighthearted look at the out-pourings of the music press and checks out the news, reviews, interviews and gossip.
I06 3 /27.5°W SPORTS-Ten Pin Bowling

2010 GMT

E01 6 /13.0°E The Deadly Ernest Horror Show

2030 GMT

E01 10 /13.0°E Manner-Magazin: Men's Programming.
E01 2 /13.0°E Familienserie

2100 GMT

E01 12 /13.0°E Gaz Bag: Gaz hosts.
E01 4 /13.0°E The News (Journal Televise)

2115 GMT

E01 2 /13.0°E Zeit im Bild

2120 GMT

I06 3 /27.5°W SPORTS-Take Stocks

2130 GMT

E01 10 /13.0°E News, Freizeit, Sport: News, Arts and Sports.

2135 GMT

I06 3 /27.5°W SPORTS-NCAA Basketball

2145 GMT

E01 2 /13.0°E Unterhaltung
E01 6 /13.0°E Sky Trax: Pop music show.

2200 GMT

E01 12 /13.0°E First Sight: The latest videos on Music Box.

2215 GMT

E01 10 /13.0°E Bunte: Talkshow.

2230 GMT

E01 6 /13.0°E Close

EUROPEAN CABLE PROGRAMMING

All times are Greenwich Meridian time

2250 GMT

E01 2 /13.0°E Auslandsjournal, Ostreport
I06 3 /27.5°W SPORTS-Late Night News

2300 GMT

E01 12 /13.0°E Sound and Vision: Gary hosts.
I06 3 /27.5°W SPORTS-Closedown

2315 GMT

E01 10 /13.0°E Nachrichten: Late news.

2330 GMT

E01 10 /13.0°E Krimi: Crime series.

2350 GMT

E01 2 /13.0°E 3 SAT - Nachrichten

SATURDAY

0010 GMT

E01 10 /13.0°E Spielfilm: Feature film.

0145 GMT

E01 10 /13.0°E Close

0600 GMT

E01 12 /13.0°E Chart Attack: Music Box UK Top 40 Hits.
E01 6 /13.0°E Fun Factory: Children's programming.

0700 GMT

E01 12 /13.0°E Gaz Bag: Gaz hosts.
I06 1 /27.5°W Cartoon Time

0800 GMT

E01 12 /13.0°E The Dance Show: Julie Brown the Disco Queen presents an hour of non-stop dance hits.

0900 GMT

E01 12 /13.0°E One Night Stand: A different concert each week.
I06 1 /27.5°W Saturday Cinema Club

1000 GMT

E01 12 /13.0°E Videopix II: Video request show.
E01 4 /13.0°E Praise the Lord: Evangelical program with Jim Bakker.

1005 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1100 GMT

E01 12 /13.0°E Diana - Sounds Alive
E01 4 /13.0°E Antennae-2 Newsfeed from Paris to TV3-Catalunya
E01 6 /13.0°E SPORTS-NHL Ice Hockey
I06 1 /27.5°W Cartoon Time

1200 GMT

E01 12 /13.0°E Chart Attack: Music Box UK Top 40 Hits.

1205 GMT

E01 6 /13.0°E SPORTS-All Star Wrestling

1300 GMT

E01 12 /13.0°E Gaz Bag: Gaz hosts.
E01 6 /13.0°E SPORTS-International Motor Sports
I06 1 /27.5°W Saturday Cinema Club

1330 GMT

E01 10 /13.0°E Solid Gold: Pop video.

1400 GMT

E01 1 /13.0°E Sky Trax-Pop music show.
E01 10 /13.0°E Familienserie: Family serial.
E01 12 /13.0°E The Dance Show: Julie Brown the Disco Queen presents an hour of non-stop dance hits.

1445 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

1500 GMT

E01 10 /13.0°E Kindersendung: Children's Programming.
E01 12 /13.0°E One Night Stand: A different concert each week.
I06 1 /27.5°W Close

1530 GMT

E01 10 /13.0°E Musicbox: Pop video.
E01 6 /13.0°E Sky Trax: Pop music show.

1600 GMT

E01 12 /13.0°E Videopix II: Video request show.
E01 4 /13.0°E Antennae-2 Newsfeed from Paris to TV3-Catalunya
I06 3 /27.5°W SPORTS-News and Half-Time Scores

1615 GMT

I06 3 /27.5°W SPORTS-Southwest Championship Wrestling

1630 GMT

E01 10 /13.0°E Zeichentrickfilme: Cartoon.

E01 6 /13.0°E Thrillseekers: Action, sports series.

1700 GMT

E01 10 /13.0°E Serien: Light entertainment.
E01 12 /13.0°E Diana - Sounds Alive
E01 6 /13.0°E Game of the Century: Football and soccer documentary.

1710 GMT

I06 3 /27.5°W SPORTS-Classified Results

1725 GMT

I06 3 /27.5°W SPORTS-Speedway: Rob McCaffery's Weekly Review.

1730 GMT

E01 10 /13.0°E Service-Journal: Information Journal.

1750 GMT

E01 6 /13.0°E Starsky and Hutch: Action, adventure series.

1800 GMT

E01 10 /13.0°E Regionales Fenster: Regional News.
E01 12 /13.0°E Chart Attack: Music Box UK Top 40 Hits.
E01 2 /13.0°E Bilder Aus Osterreich
E01 4 /13.0°E Radish Constellation: Zany series
I06 3 /27.5°W SPORTS-Major League Baseball

1810 GMT

E01 4 /13.0°E The Odors Band: Variety show.

1830 GMT

E01 10 /13.0°E Aktuelles Quiz: National News.

1840 GMT

E01 6 /13.0°E SPORTS-All Star Wrestling

1845 GMT

E01 10 /13.0°E Spielfilm: Feature film.

1900 GMT

E01 12 /13.0°E Gaz Bag: Gaz hosts.

E01 2 /13.0°E Heute
I06 3 /27.5°W SPORTS-The Mid-Evening News

1905 GMT

E01 4 /13.0°E For a Fistful of Detective Movies

1930 GMT

E01 2 /13.0°E Fernsehspiel (Theater)

1935 GMT

E01 6 /13.0°E Film

1945 GMT

I06 3 /27.5°W SPORTS-Australian Rugby League

2000 GMT

E01 12 /13.0°E The Dance Show: Julie Brown the Disco Queen presents an hour of non-stop dance hits.

2010 GMT

E01 4 /13.0°E Namur's Royal Moncrabeau

2030 GMT

E01 10 /13.0°E Euro-Media Spezial: 1920's documentary.
E01 2 /13.0°E Osterreich II

2035 GMT

E01 4 /13.0°E Ten Puzzle Pieces: Video essays.

2045 GMT

E01 6 /13.0°E Sky Trax: Pop music show.

2100 GMT

E01 12 /13.0°E One Night Stand: A different concert each week.
E01 4 /13.0°E The News (Journal Televise)
I06 3 /27.5°W SPORTS-Boxing

2115 GMT

E01 2 /13.0°E Aspekte

2130 GMT

E01 10 /13.0°E News, Freizeit, Sport: News, Arts and Sports.

2150 GMT

E01 2 /13.0°E Aus der Welt der Musik

2200 GMT

E01 12 /13.0°E Videopix II: Video request show.

2215 GMT

E01 10 /13.0°E Spielfilm: Feature film.

2230 GMT

E01 6 /13.0°E Close

2250 GMT

E01 2 /13.0°E Begegnungen
I06 3 /27.5°W SPORTS-Late Night News

2300 GMT

E01 12 /13.0°E Diana - Sounds Alive
E01 4 /13.0°E Dunamis of Nederland: In Dutch.
I06 3 /27.5°W SPORTS-Closedown News

Atlantic Ocean Region

INTELSAT IVA

Satellite	Location	Tr.#	Tr. Beam	Tr. Type	Polarization/ Center Frequency	Service Description/Country	Audio Info	Estimated Beam-Edge EIRP
I-IVA—F01	31.0 W	5	East Hemi	Half	RH-3798	**Radiodiffusion Television Marocaine TV**—Marocaine TV	3821.12 MHz/ SCPC	22 dBW
I-IVA—F01	31.0 W	13	East Hemi	Half	RH-3965	**Libya**	6.2 MHz S/C	22 dBW
I-IVA—F01	31.0 W	20	Global Beam	Full	RH-4095	**Argentina**	Non-video lease	24 dBW
I-IVA—F01	31.0 W	24	Global Beam	Full	RH-4175	**Argentina Televisora Color (ATC)**—Channel 7, Buenos Aires	6.4 MHz S/C	23 dBW
I-IVA—F04	21.5 W	1	East Hemi	Full	RH-3725	**Saudi Arabian Television**	3901.75 MHz/SCPC	23 dBW
I-IVA—F04	21.5 W	5	East Hemi	Half	RH-3795	**Tele-Sahel**—TV Niger	3822.625 MHz/SCPC	17 dBW
I-IVA—F04	21.5 W	9	East Hemi	Full	RH-3885	**Saudi Arabia**	Non-video lease	—
I-IVA—F04	21.5 W	11	Global Beam	Full	RH-3925	**Embratel**—Brazil occasional video	5.8 MHz S/C	19 dBW
I-IVA—F04	21.5 W	13	East Hemi	Full	RH-3965	**Sudan Television**	3992.25 MHz/SCPC	20 dBW
I-IVA—F04	21.5 W	17	East Hemi	Half	RH-4045	**Zaire Television**	4071.825 MHz/SCPC	19 dBW

INTELSAT V

I-V—F08	53.0 W	18	Global Beam	Half	RH-4065	**Denmark**—Radio Denmark	4049.625 MHz/SCPC	—
I-V—F08	53.0 W	22	Global Beam	Half	RH-4135	**TV Chile, Santiago, Channel 7**	SCPC	19 dBW
I-V—F04	34.5 W	11	East Zone	Half	LH-3930	**TVE 1**—Spain	6.6 MHz S/C	18 dBW
I-V—F04	34.5 W	15	East Hemi	Half	RH-4010	**TVE 2**—Spain	6.6 MHz S/C	15 dBW
I-V—F04	34.5 W	22	Global Beam	Half	RH-4135	**UK – USA**—International Television lease (WorldNet)	—	—
I-V—F04	34.5 W	24	Global Beam	Full	RH-4177.5	**International Video News Feeds**	—	Varies 17 – 24 dBW
I-VA—F10	24.5 W	7	East Spot	Full	V-11.485	**World Net**—TV service of the U.S. Information agency	S/C	39dBW
I-VA—F10	24.5 W	24	Global Beam	Half/Full	RH-4177.5	**Occasional Video**—Major international news feeds	—	Varies 17 – 24 dBW
I-V—F06	18.5 W	22	Global Beam	Full	RH-4135	**France**	Non-video lease	—
I-V—F06	18.5 W	24	Global Beam	Half/Full	RH-4177.5	**Occasional Video**—Major international news feeds	—	Varies 17 – 24 dBW
I-V—F02	1.0 W	7	Global Beam	Full	RH-3845	**Norway**	Non-video lease	—
I-V—F02	1.0 W	9	East Hemi	Full	RH-3885	**AFRTS—Southern Europe Broadcasting TV**	S/C	26dBW
I-V—F02	1.0 W	18	Global Beam	Half	RH-4065	**BrightStar**—Independent international satellite system providing video services between USA and UK	6.625 MHz S/C	18dBW
I-V—F02	1.0 W	19	Global Beam	Full	RH-4085	**Portugal TV**	6.6 MHz S/C	18dBW
I-V—F02	1.0 W	22	Global Beam	Full	RH-4135	**Portugal**	Non-video lease	—
I-V—F02	1.0 W	24	Global Beam	Full	RH-4175	**American Forces Radio and Television Service**—Provides live American programming to servicemen abroad	6.8 MHz S/C	20dBW
I-V—F01	57.0 E	5	East Hemi	Full	RH-3805	**India**	Non-video lease	—
I-V—F01	57.0 E	9	West Hemi	Half	RH-3875	**Television Algerie**	SCPC	26 dBW
I-V—F01	57.0 E	10	West Hemi	Half	RH-3905	**France**	Non-video lease	—
I-V—F01	57.0 E	14	West Hemi	Half	RH-3975	**Nigerian Television**	—	16 dBW
I-V—F01	57.0 E	16	East Hemi	Quarter	RH-3995	**Thailand**	Non-video lease	—
I-V—F01	57.0 E	18	West Hemi	Full	RH-4055	**Nigeria TV**	Non-video lease/ SCPC	21 dBW
I-V—F01	57.0 E	20	Global Beam	Full	RH-4085	**Oman Television**	SCPC	19 dBW
I-V—F01	57.0 E	22	Global Beam	Full	RH-4135	**Nigeria**	Non-video lease	—

Satellite	Location	Tr.#	Tr. Beam	Tr. Type	Polarization/ Center Frequency	Service Description/Country	Audio Info	Estimated Beam-Edge EIRP
I-V—F07	60.0 E	24	Global Beam	Half/Full	RH-4177.5	**International News Feeds**	—	Varies 17 – 24 dBW
I-V—F05	63.0 E	10	West Hemi	Half	RH-3905	**France**	Non-video lease	—
I-V—F05	63.0 E	24	Global Beam	Half/Full	RH-4177.5	**Occasional Video**—European and Australian news feeds	—	Varies 17 – 24 dBW

MOLNIYA

MOLNIYA 3	Non-Geo-synch.	9	Northern Global Beam	Full	RH-3875	**II Programma**—Soviet Television, Moscow	Sound-in-sync	31 dBW

GORIZONT

GORIZONT 7	14.0 W		Spot Beam	Full	11.512 GHz	**I Programma**—Soviet Television, Moscow	7.0 MHz S/C	—
GORIZONT 7	14.0 W	– 1	Spot Beam	Full	RH-3675	**I Programma**—Soviet Television, Moscow	7.0 MHz S/C with audio companding	22 dBW (Americas) 46 dBW (Europe)
GORIZONT 7	14.0 W	1	Global Beam	Full	RH-3725	**Occasional Video**	7.5 MHz S/C	28 dBW
GORIZONT 7	14.0 W	4	North Hemi	Full	RH-3775	**Non-video SCPC Telephony**—Radio Moscow at 3778.975 MHz	—	—
GORIZONT 7	14.0 W	6	Global Beam	Full	RH-3825	**Intersputnik and O.I.R.T. TV Program exchanges**	7.5 MHz S/C	28 dBW
GORIZONT 7	14.0 W	9	North Hemi	Full	RH-3875	**Non-video wideband digital signals**	—	—
GORIZONT 7	14.0 W	11	North Hemi	Full	RH-3925	**Non-video narrowband digital signals**	—	—
GORIZONT 9	53.0 E	– 1	Spot Beam	Full	RH-3675	**I Programma**—Soviet Television, Moscow	7.0 MHz S/C with audio companding	17 dBW (Europe) 46 dBW (Asia)
GORIZONT 9	53.0 E	4	North Hemi	Full	RH-3775	**Non-video SCPC Telephony**	—	—
GORIZONT 9	53.0 E	6	Zone Beam	Full	RH-3825	**Non-video wideband digital signals**	—	—
GORIZONT 9	53.0 E	9	North Hemi	Full	RH-3875	**II Programma**—Soviet Television, Moscow	Sound-in-sync	—
GORIZONT 9	53.0 E	11	North Hemi	Full	RH-3925	**Non-video wideband digital signals**	—	—
GORIZONT 8	90.0 E	– 1	Spot Beam	Full	RH-3675	**II Programma**—Soviet Television, Moscow	7.0 MHz S/C with audio companding	—
GORIZONT 8	90.0 E	9	North Hemi	Full	RH-3875	**I Programma**—Soviet Television, Moscow	Sound-in-sync	—

TELECOM F1

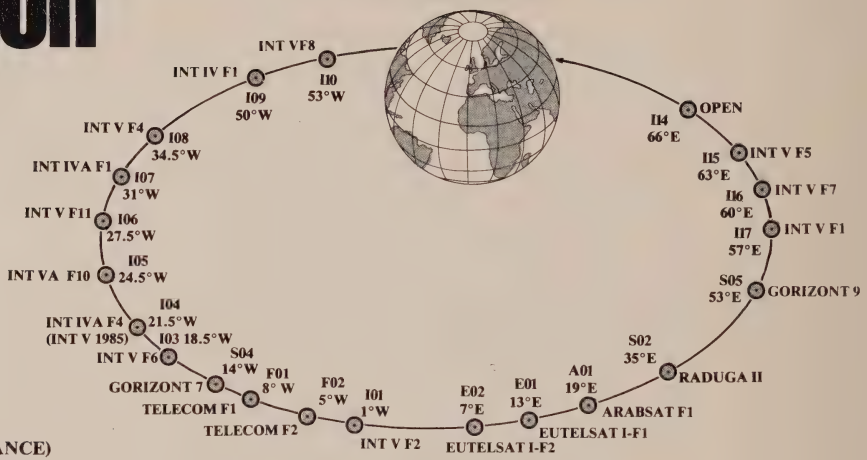
TELECOM F1	8.0 W	1	Semi-Global	Full	LH-3710	**AITV, Agence d'Images Television Francaise, News**—Paris	6.6 MHz S/C	24 dBW
TELECOM F1	8.0 W	4	Spot Beam	Full	LH-3780	**Non-video TDMA Telephony**	—	—
TELECOM F1	8.0 W	5	Spot Beam	Full	LP-12690	**Occasional Video**	—	40 dBW
TELECOM F1	8.0 W	6	Spot Beam	Full	LP-12732	**Occasional Video**	—	40 dBW

INSAT

INSAT 1-B	74.0 E	S*	Spot Beam	Full	LP-2575	**TV India**	—	—
INSAT 1-B	74.0 E	S*	Spot Beam	Full	LP-2615	**TV India**	—	—

H = horizontal polarization **RH** = right-hand circular polarization **LH** = left-hand circular polarization **LP** = linear polarization **SCPC** = single-channel-per-carrier
*S–band transponders between 2.50 – 2.69 GHz

Atlantic Ocean Region



A = ARABSAT
S = STATSIONAR
F = TELECOM (FRANCE)
I = INTELSAT (INT)
E = EUTELSAT

The following international satellite programming guide represents a typical schedule for C-band satellite TV transponders that beam their signals into Europe, Africa, and the Middle East. While *Satellite World* makes every attempt to keep the program listings as current as possible, the reader should be aware that some television networks listed below may realign their programming schedules by inserting sports events, specials, miniseries, or new programs, often without prior notice.

Program times are listed in GMT; each program day begins at 0000. Use the time conversion chart bound into this issue to convert from GMT to local time.

Eighteen international satellite services are listed in this month's Atlantic Ocean programming guide. Additional program schedules for other 4-GHz satellite TV services will be added in the months ahead.

ID. NO.	SATELLITE	TR. #	BEAM	SERVICE
I10	Int. V F8	22	Global	TV Chile, Channel 7, Santiago, Chile
I08	Int. V F4	11	East Zone	TVE 1 (Spain)
I08	Int. V F4	15	East Hemi	TVE 2 (Spain)
I08	Int. V F4	24	Global	International News and Sports Feeds
I07	Int. IVA F1	5	East Hemi	Marocaine TV (Morocco)
I07	Int. IVA F1	13	East Hemi	TV Libya
I07	Int. IVA F1	24	Global	Argentina Televisora Color
I05	Int. V F3	23 or 24	Global	International News and Sports Feeds
I04	Int. IVA F4	13	East Hemi	Sudan Television
I04	Int. IVA F4	17	East Hemi	Zaire Television
S04	Gorizont 7	1	Spot	I Programma, Moscow
S04	Gorizont 7	6	Global	Portions of I Programma; Intervision Unilaterals
F01	Telecom F1	1	Semi-Global	AITV, Paris
I01	Int. V F2	19	Global	RTP, Lisbon, Portugal
I01	Int. V F2	24	Global	AFRTS (American Forces Radio and Television Service)
S05	Gorizont 9	1	Spot	I Programma, Moscow, II Programma, Moscow
I16	Int. V F5	24	Global	Eurovision News Feeds, Brussels, and UPITN News Exchanges, England and Australia
I17	Int. V F1	20	Global	TV Oman

SUNDAY

0000 GMT

I01 24 /1.0°W SPORTS-ESPN Sports Event
I07 24 /31.0°W Martin Eden: Miniserie.

0020 GMT

I08 15 /34.5°W Despedida y Cierre (Close)

0025 GMT

I10 22 /53.0°W Visiones (Visions)

0030 GMT

I10 22 /53.0°W Noche de Gigantes (Night of Giants)

0100 GMT

I07 24 /31.0°W Fiebre Amarilla (Yellow Fever)

0200 GMT

S05 -1 /53.0°E Vremya (Time): The Moscow Morning News.

0230 GMT

I10 22 /53.0°W Cine de Media Noche (Midnight Movie)

0320 GMT

S05 -1 /53.0°E Sportloto (Sport lottery): Drawing.

0330 GMT

I01 24 /1.0°W SPORTS-CNN Sports Tonite
I07 24 /31.0°W Cine de Trasnoche (Movie)
S05 -1 /53.0°E Budil'nik (The Alarm Clock)

0400 GMT

I01 24 /1.0°W CNN Week in Japan
S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.
S05 -1 /53.0°E Sluzhy Sovetskomu Soyuzu (I Serve the Soviet Union)

0430 GMT

I01 24 /1.0°W CNN Headline News

0500 GMT

I01 24 /1.0°W AFRTS Sign Off or CNN Headline News
S05 -1 /53.0°E Zdorov'e (Health)

0520 GMT

S04 -1 /14.0°W Sportloto (Sport lottery): Drawing.

0530 GMT

S04 -1 /14.0°W Budil'nik (The Alarm Clock)

0545 GMT

S05 -1 /53.0°E Utrennya Ya Pochta (The Morning Mail)

0600 GMT

S04 -1 /14.0°W Sluzhy Sovetskomu Soyuzu (I Serve the Soviet Union)

0615 GMT

S05 -1 /53.0°E Kinozhurnal (Film Magazine)

0630 GMT

S05 -1 /53.0°E Sel'Skij Chas (Village Hour)

0700 GMT

S04 -1 /14.0°W Zdorov'e (Health)

0730 GMT

S05 -1 /53.0°E Musical'Nyj Kiosk (Musical Kiosk)

0745 GMT

S04 -1 /14.0°W Utrennya Ya Pochta (The Morning Mail)

0815 GMT

S04 -1 /14.0°W Kinozhurnal (Film Magazine)

0830 GMT

S04 -1 /14.0°W Sel'Skij Chas (Village Hour)

0915 GMT

I08 11 /34.5°W Carta de Ajuste (Test Card)

0920 GMT

I08 11 /34.5°W Apertura y Presentacion (Opening)

0925 GMT

I08 11 /34.5°W Concierto (Concert)

0930 GMT

S04 -1 /14.0°W Musical'Nyj Kiosk (Musical Kiosk)

1000 GMT

I08 11 /34.5°W El Dia Del Senor (God's Day): Santa Misa (Holy Mass).

1030 GMT

I08 15 /34.5°W Carta de Ajuste (Test Card)
S05 -1 /53.0°E Klub Putshestvennikov (Traveler's Club)

1035 GMT

I08 15 /34.5°W Apertura y Presentacion (Opening)

1040 GMT

I08 15 /34.5°W La Buena Musica (The Good Music)

1100 GMT

I08 11 /34.5°W Pueblo de Dios (God's Town)
I17 20 /57.0°E Royal Anthem-Holy Koran

1130 GMT

I08 11 /34.5°W Estudio Estadio (Stadium Study)
I17 20 /57.0°E Cartoon: Children's programming.

1140 GMT

I08 15 /34.5°W Ruy, El Pequeno Cid

1200 GMT

S05 -1 /53.0°E Meahdunarodhaya Panorama (International Panorama)

1210 GMT

I08 15 /34.5°W El Nuevo Pacifico (The New Pacific)

1230 GMT

I04 17 /21.5°W Zaire TV News
I07 24 /31.0°W La Fe del Hombre (Man's Faith)
I10 22 /53.0°W La Santa Misa (The Holy Mass): Religioso (Religion).
S04 -1 /14.0°W Klub Putshestvennikov (Traveler's Club)

1245 GMT

I17 20 /57.0°E Educational Program

1300 GMT

I01 24 /1.0°W AFRTS Sign On: Schedules, advisories and color bars.
I04 17 /21.5°W Children's Programming
I07 24 /31.0°W Buen Dia, Maria (Good Day, Maria)

1310 GMT

I08 15 /34.5°W El Padre Murphy (Father Murphy)

1330 GMT

I01 24 /1.0°W CNN Headline News
I10 22 /53.0°W Clasicos de la Juventud (Youth's Classics)

1335 GMT

I04 17 /21.5°W Close

1340 GMT

I17 20 /57.0°E Arabic Serial

1400 GMT

F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W CBS Sunday Morning
I07 13 /31.0°W Color Bars
I07 24 /31.0°W Los Invasores (The Invaders): Serie (Series).
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I08 15 /34.5°W SPORTS-Transmision Deportiva (Sports Transmission)
I10 22 /53.0°W Viva El Deporte (Hurray for Sports)
S04 -1 /14.0°W Meahdunarodhaya Panorama (International Panorama)

1430 GMT

I17 20 /57.0°E Cultural Program

1435 GMT

I08 11 /34.5°W Heathcliff y Marmaduke: Dibujos animados (Cartoons).

1500 GMT

I07 24 /31.0°W SPORTS-Deportes (Sports)
I10 22 /53.0°W Dibujos Animados (Cartoons)
I17 20 /57.0°E News: Local.
S05 -1 /53.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1505 GMT

I08 11 /34.5°W Fama (Fame): Drama serie (Drama Series).

1510 GMT

I10 22 /53.0°W Lo Mejor de Mazapan (The Best of Mazapan): Programa infantil (Children's programming).

1530 GMT

I01 24 /1.0°W ABC This Week With David Brinkley: U.S. current affairs program with interviews with government officials.
I17 20 /57.0°E Local Program

1535 GMT

S05 -1 /53.0°E Futbol'Noe Obozrenie (Soccer Review)

1550 GMT

I10 22 /53.0°W Dibujos Animados (Cartoons)

1555 GMT

I08 11 /34.5°W El Mundo (The World)

1600 GMT

I04 13 /21.5°W Documentary
I07 13 /31.0°W Live Coverage of Libyan "People's Committees"
I10 22 /53.0°W Cachureos: Programa infantil (Children's programming).
I17 20 /57.0°E Religious Program

1630 GMT

I01 24 /1.0°W CNN Headline News
I04 13 /21.5°W News in English
I07 24 /31.0°W MOVIE-Cine del Domingo (Sunday Movie)
I08 11 /34.5°W De 7 En 7 (Of 7 On 7)
I08 15 /34.5°W Estrenos TV (TV Debut)

1700 GMT

I01 24 /1.0°W SPORTS-Major Sporting Event
I04 13 /21.5°W Arabian Soap Opera
I04 17 /21.5°W Children's Programming
I08 11 /34.5°W SPORTS-Grand Prix
I10 22 /53.0°W Magnetoscopio Musical
I17 20 /57.0°E News: Arabic.
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1730 GMT

I08 11 /34.5°W M.A.S.H.: Comedia (Comedy).
I10 22 /53.0°W Dibujos Animados (Cartoons)
I17 20 /57.0°E Arabic Serial

1735 GMT

S04 -1 /14.0°W Futbol'Noe Obozrenie (Soccer Review)

1800 GMT

I04 17 /21.5°W Sports
I07 5 /31.0°W Children's Programming
I08 11 /34.5°W Mas Vale Prevenir (An Ounce of Prevention)

1820 GMT

I08 15 /34.5°W Tao-Tao

1830 GMT

I04 13 /21.5°W News in Arabic
I04 17 /21.5°W Zaire TV News
I08 11 /34.5°W Punto de Encuentro (Point of Encounter)
I17 20 /57.0°E News: English.

1855 GMT

I04 13 /21.5°W Weather Report

1900 GMT

I04 13 /21.5°W Current Affairs Program

ATLANTIC OCEAN REGION

All times are Greenwich Meridian time

I04 17 /21.5°W French Language Entertainment Program
I17 20 /57.0°E Program Review

1905 GMT

I17 20 /57.0°E English Film

1910 GMT

I08 15 /34.5°W El Ano en Que Nacimos (The Year We Were Born)

1930 GMT

I04 13 /21.5°W Drama or Action series
I08 11 /34.5°W SPORTS-Carreras de Caballos (Horse Races)

2000 GMT

I01 24 /1.0°W SPORTS-Major Sporting Event
I07 13 /31.0°W Libyan TV News
I07 5 /31.0°W Moroccan Soap Opera
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I08 15 /34.5°W El Legado del Mundo Arabe (The Legacy of the Arab World)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I07 13 /31.0°W Weather
I08 15 /34.5°W El Dominical (The Dominical)
I10 22 /53.0°W La Pandilla Computarizada (The Computerized Band)
I17 20 /57.0°E News in Brief-Holy Koran

2035 GMT

I07 13 /31.0°W Current Affairs program
I08 11 /34.5°W Mike Hammer

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

I07 13 /31.0°W Light Entertainment Show
I07 24 /31.0°W La Pelicula Sorpresa (The Surprise Movie)
I07 5 /31.0°W Marocaine TV News & Weather

2130 GMT

I04 13 /21.5°W Late News in Arabic
I07 5 /31.0°W Light Entertainment Program
I10 22 /53.0°W Jappening Con Ja (Happening With Ja)

2140 GMT

I08 15 /34.5°W Largometraje (Long Footage)

2200 GMT

I04 13 /21.5°W Close
I08 11 /34.5°W Estudio Estadio (Stadium Study)
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.

2215 GMT

I04 17 /21.5°W Late News
I07 5 /31.0°W Close

2230 GMT

I08 11 /34.5°W Autorretrato (Portrait of an Author)

2240 GMT

I04 17 /21.5°W Close

2245 GMT

I07 13 /31.0°W Close

2300 GMT

I01 24 /1.0°W CNN Headline News
I07 24 /31.0°W Encuentros (Encounters)

2330 GMT

I08 11 /34.5°W Despedia y Cierre (Farewell and Sign Off)
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).

2345 GMT

I08 15 /34.5°W Despedida y Cierre (Close)

MONDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I07 24 /31.0°W El Prisma de la Vida (The Prism of Life)

0030 GMT

I10 22 /53.0°W Best Seller: Pelicula (Movie).

0100 GMT

I01 24 /1.0°W CNN Headline News
I07 24 /31.0°W Cuentos Para Ver (Tales to See)

0200 GMT

I07 24 /31.0°W Cine Club (Movie Club)
S05 -1 /53.0°E Vremya (Time): The Moscow Morning News.

0230 GMT

I10 22 /53.0°W SPORTS-Zoom Deportivo (Zoom Sports)

0235 GMT

S05 -1 /53.0°E Futbol'Noe Obozrenie (Soccer Review)

0300 GMT

I01 24 /1.0°W SPORTS-CNN Sports Tonite

0305 GMT

S05 -1 /53.0°E Fil'm (Film)

0330 GMT

I01 24 /1.0°W AFRTS Sign Off or CNN Headline News

0400 GMT

S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0430 GMT

I10 22 /53.0°W Cierre (Close)

0435 GMT

S04 -1 /14.0°W Futbol'Noe Obozrenie (Soccer Review)

0505 GMT

S04 -1 /14.0°W Fil'm (Film)

0850 GMT

S05 -1 /53.0°E Fil'm (Film)

1050 GMT

S04 -1 /14.0°W Fil'm (Film)

1100 GMT

I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I17 20 /57.0°E Royal Anthem-Holy Koran: Religious talk.

1110 GMT

I17 20 /57.0°E Cartoon: Children's programming.

1130 GMT

I05 24 /24.5°W CBS and NBC News Feeds from London

1200 GMT

I17 20 /57.0°E Educational Program

1230 GMT

I04 17 /21.5°W Zaire TV News
I07 24 /31.0°W Telescuela Tecnica (Technical TV School)
I08 11 /34.5°W Carta de Ajuste (Test Card)
I17 20 /57.0°E Children's Program: English.

1245 GMT

I08 11 /34.5°W Programacion de Cobertura Regional (Program of Regional Coverage)
S05 -1 /53.0°E Segodnya V Mire (Today in the World): World News.

1300 GMT

I01 24 /1.0°W Sign On
I04 17 /21.5°W Children's Programming
I07 24 /31.0°W Buen Dia Maria (Good Day Maria): Clases de gimasia (Gymnastics classes).
I17 20 /57.0°E Children's Program: Arabic.
S04 6 /14.0°W UPITN News From London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W ABC World News AM

1335 GMT

I04 17 /21.5°W Close

1340 GMT

I17 20 /57.0°E Arabic Serial

1355 GMT

I08 11 /34.5°W Conexion con la Programacion Nacional (National Programming)

1400 GMT

F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W NBC Today Show
I05 24 /24.5°W UPITN News London
I07 13 /31.0°W Color Bars
I07 24 /31.0°W Smith y Jones (Smith and Jones): Serie (Series).
I08 11 /34.5°W Telediario-Primera Edicion (Teledaily-First Edition)
I10 22 /53.0°W Los Muppets (The Muppets): Programa infantil (Children's programming).

1425 GMT

I10 22 /53.0°W La Cocina de Monica (Monica's Kitchen)

1430 GMT

I05 24 /24.5°W Visnews for Middle East and Europe
I10 22 /53.0°W Mazapan: Programa infantil (Children's programming).
I17 20 /57.0°E Cultural Program

1435 GMT

I08 11 /34.5°W El Gran Heroe Americano (The Greatest American Hero): Comedia (Comedy).

1445 GMT

S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

1500 GMT

I07 24 /31.0°W Vivir Bien (To Live Well)
I10 22 /53.0°W El Festival de la Una (Festival for One)
I17 20 /57.0°E News: Local.
S05 -1 /53.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1520 GMT

I17 20 /57.0°E Local Program

1530 GMT

I07 24 /31.0°W Noticeiro (News).
I08 11 /34.5°W SPORTS-Pista Libre (Free Track)

1600 GMT

I01 24 /1.0°W CNN Headline News
I04 13 /21.5°W Documentary
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I07 13 /31.0°W Live Coverage of Libyan "People's Committees"
I07 24 /31.0°W Cordialmente (Cordially): Periodistico (Journalism).

1615 GMT

I17 20 /57.0°E English Serial

1625 GMT

I08 11 /34.5°W Hola, Chicos! (Hello, Kids!)

1630 GMT

I04 13 /21.5°W News in English
I08 11 /34.5°W El Planeta Imaginario (The Imaginary Planet)

1700 GMT

I01 24 /1.0°W CNN Take Two: Hour 2.
I04 13 /21.5°W Arabian Soap Opera
I04 17 /21.5°W Children's Programming
I05 24 /24.5°W Visnews London: Early evening news feeds for SABC Johannesburg.
I07 24 /31.0°W 20 Mujeres (20 Women): Periodistico (Journalism).
I08 11 /34.5°W Barrio Sesamo (Sesame Street): Children's programming.
I10 22 /53.0°W Edicion Uno (First Edition): Noticias (News).
I17 20 /57.0°E News: Arabic.

S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1730 GMT

I08 11 /34.5°W De Aqui Para Alla (From Here to There)
I10 22 /53.0°W NOVELA-Tu Eres Mi Destino (You are My Destiny)

1745 GMT

I08 15 /34.5°W Carta de Ajuste (Test Card)

1755 GMT

I08 15 /34.5°W Apertura y Presentacion (Opening)

1800 GMT

I01 24 /1.0°W CNN Headline News
I04 17 /21.5°W Sports
I07 5 /31.0°W Children's Programming
I08 11 /34.5°W Viva la Trade! (Long Live the Afternoon!)
I08 15 /34.5°W SPORTS-Athletismo (Athletics)
I10 22 /53.0°W Un Minuto en la Moda (One Minute in Fashion)

1805 GMT

I10 22 /53.0°W Amalia Batista: Teleserie (Teleseries).

1830 GMT

I01 24 /1.0°W 60 Minutes
I04 13 /21.5°W News in Arabic
I04 17 /21.5°W Zaire TV News
I17 20 /57.0°E News: English.

1855 GMT

I04 13 /21.5°W Weather Report

1900 GMT

I04 13 /21.5°W Current Affairs Program
I04 17 /21.5°W French Language Entertainment Program
I07 24 /31.0°W Telejuegos (Telegames): Infantil (Children's programming).
I08 11 /34.5°W Consumo (Consumption)
I10 22 /53.0°W El Hombre Nuclear (Nuclear Man): Serie de accion (Action series).
I17 20 /57.0°E Program Review-Arabic Film

1910 GMT

I05 24 /24.5°W OTI: SIN News.

1930 GMT

I01 24 /1.0°W Meet the Press
I04 13 /21.5°W Light Entertainment Show
I08 15 /34.5°W La Noche del Cine Espanol (The Night of the Spanish Movie)

1950 GMT

I08 24 /34.5°W UPITN DSSA News Unilaterals: Including Globo, Canadian CTV, and US network feeds.

2000 GMT

I01 24 /1.0°W Face the Nation
I07 13 /31.0°W Libyan TV News
I07 5 /31.0°W Moroccan Soap Opera
I08 11 /34.5°W Telediario-Segunda Edicion (Teledaily-Second Edition): Noticias (News).
I10 22 /53.0°W Tardes de Cine (Afternoon Movie)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I01 24 /1.0°W CNN Headline News
I07 13 /31.0°W Weather
I16 24 /60.0°E Visnews London for Asia and Pacific
I17 20 /57.0°E News in Brief-Holy Koran

2035 GMT

I07 13 /31.0°W Current Affairs program
I08 11 /34.5°W El Superagente 86 (Get Smart)

2040 GMT

I05 24 /24.5°W Visnews London

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

I01 24 /1.0°W CNN Take Two: Hour 1.
I07 13 /31.0°W Light Entertainment Show
I07 24 /31.0°W El Auto Fantastico (The Fantastic Auto): Serie (Series).
I07 5 /31.0°W Marocaine TV News & Weather
S05 -1 /53.0°E Segodnya V Mire (Today in the World): World News.

2105 GMT

I08 11 /34.5°W El Baile (The Dance)

2130 GMT

I04 13 /21.5°W Late News in Arabic
I07 5 /31.0°W Light Entertainment Program
I16 24 /60.0°E Visnews London

2140 GMT

I05 24 /24.5°W Visnews

2200 GMT

I01 24 /1.0°W AFRTS Advisory Block: Schedules, advisories and color bars.
I04 13 /21.5°W Close
I05 24 /24.5°W CBS International: News unilaterals for South America.
I07 24 /31.0°W Gente Como la Gente (People Like People): Telecomedia (Comedy).
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.
I10 22 /53.0°W Segunda Franja Cultural (Second Cultural Fringe)

2205 GMT

I08 11 /34.5°W Capitales Culturales de Europa (Cultural Capitals of Europe)

2210 GMT

I05 24 /24.5°W NBC News Feeds

2215 GMT

I04 17 /21.5°W Late News
I07 5 /31.0°W Close

2230 GMT

I01 24 /1.0°W ABC World News Tonight
I07 24 /31.0°W Noticiero (News).
I08 15 /34.5°W Musica y Musicos (Music and Musicians)

2240 GMT

I04 17 /21.5°W Close

2245 GMT

I07 13 /31.0°W Close

2300 GMT

I01 24 /1.0°W NBC Nightly News
I05 24 /24.5°W UPITN for Latin America
I07 24 /31.0°W Mesa de Noticias (News Desk): Programa humoristico (Comedy program).
I08 11 /34.5°W Telediario 3 (Teledaily 3): Noticias (News).
I10 22 /53.0°W Marta a Las Ocho (Marta at Eight): Teleserie (Teleseries).
S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

2305 GMT

I08 15 /34.5°W Ultimas Preguntas (Final Questions)

2320 GMT

I08 11 /34.5°W Teledeporte (Sports News)

2330 GMT

I01 24 /1.0°W CBS Evening News
I08 11 /34.5°W Despedida y Cierre (Farewell and Sign Off)
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).

2335 GMT

I08 15 /34.5°W Telediario: Noticias (News).

TUESDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I07 24 /31.0°W Kim de la India (Kim of India): Miniserie (Miniseries).

0005 GMT

I08 15 /34.5°W Despedida y Cierre (Close)

0030 GMT

I10 22 /53.0°W Gran Gala Del Ballet (Grand Gala of Ballet)

0100 GMT

I01 24 /1.0°W MacNeil, Lehrer Report
I07 24 /31.0°W Interpelacion (Questioning): Peridoistico (Journalism).

0200 GMT

I01 24 /1.0°W CNN Headline News
S05 -1 /53.0°E Vremya (Time): The Moscow Morning News.

0230 GMT

I07 24 /31.0°W Nos Estamos Viendo (We Are Seeing): Periodistico (Journalism).

0245 GMT

I10 22 /53.0°W Edicion Dos (Second Edition): Noticias (News).

0300 GMT

I01 24 /1.0°W SPORTS-CNN Sports
I07 24 /31.0°W Titulares (Titles): Informativo (Report).

0315 GMT

I10 22 /53.0°W Clasicos del Cine (Movie Classics)

0330 GMT

I01 24 /1.0°W NBC Tonight Show starring Johnny Carson

0400 GMT

S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0430 GMT

I01 24 /1.0°W CNN Headline News

0500 GMT

I01 24 /1.0°W ABC Nightline
I10 22 /53.0°W Cierre (Close)

0530 GMT

I01 24 /1.0°W CNN Headline News

0600 GMT

I01 24 /1.0°W AFRTS Sign Off or CNN Headline News

0850 GMT

S05 -1 /53.0°E Dokumntal'nye Fil'my (Documentary Film)

1050 GMT

S04 -1 /14.0°W Dokumntal'nye Fil'my (Documentary Film)

1100 GMT

I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I17 20 /57.0°E Royal Anthem-Holy Koran: Religious talk.

1125 GMT

I17 20 /57.0°E Cartoon: Children's programming.

1130 GMT

I05 24 /24.5°W CBS and NBC News Feeds from London

1200 GMT

I17 20 /57.0°E Educational Program

1230 GMT

I04 17 /21.5°W Zaire TV News
I07 24 /31.0°W Telescuela Tecnica (Technical TV School)
I08 11 /34.5°W Carta de Ajuste (Test Card)
I17 20 /57.0°E Children's Program: English.

1245 GMT

I08 11 /34.5°W Programacion de Cobertura Regional (Program of Regional Coverage)
S05 -1 /53.0°E Segnodnya V Mire (Today in the World): World News.

1300 GMT

I01 24 /1.0°W Sign On
I04 17 /21.5°W Children's Programming

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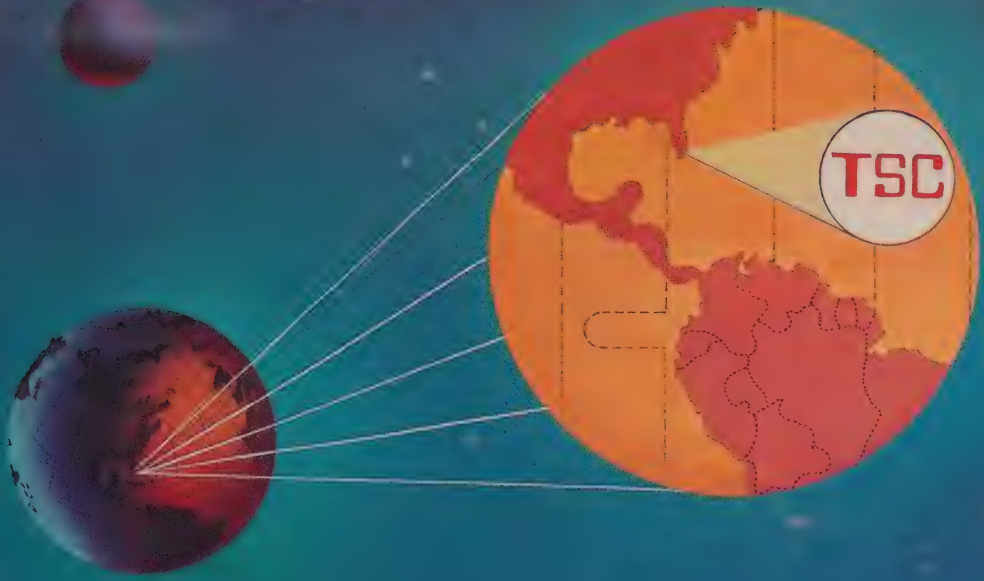

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ATLANTIC OCEAN REGION

All times are Greenwich Meridian time

I07 24 /31.0°W Buen Dia Maria (Good Day Maria): Clases de gimasia (Gymnastics classes).
I17 20 /57.0°E Open Seasame: Children's Program in Arabic.
S04 6 /14.0°W UPITN News from London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W ABC World News AM

1335 GMT

I04 17 /21.5°W Close

1340 GMT

I17 20 /57.0°E Arabic Serial

1355 GMT

I08 11 /34.5°W Conexion Con La Programacion Nacional (National Programming)

1400 GMT

F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W NBC Today Show
I05 24 /24.5°W UPITN News London
I07 13 /31.0°W Color Bars
I07 24 /31.0°W Smith y Jones (Smith and Jones): Serie (Series).
I08 11 /34.5°W Telediario-Primera Edicion (Teledaily-First Edition)
I10 22 /53.0°W Los Muppets (The Muppets): Programa infantil (Children's programming).

1430 GMT

I05 24 /24.5°W Visnews for Middle East and Europe
I10 22 /53.0°W Festival de la Una (Festival for One)
I17 20 /57.0°E Cultural Program

1435 GMT

I08 11 /34.5°W El Gran Heroe Americano (The Greatest American Hero): Comedia (Comedy).

1445 GMT

S04 -1 /14.0°W Segnodnya V Mire (Today in the World): World News.

1500 GMT

I07 24 /31.0°W Vivir Bien (To Live Well)
I17 20 /57.0°E News: Local.
S05 -1 /53.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1520 GMT

I17 20 /57.0°E Local Program

1530 GMT

I07 24 /31.0°W Noticiero (News).
I08 11 /34.5°W Tocata

1550 GMT

I17 20 /57.0°E Cultural Program

1600 GMT

I01 24 /1.0°W CNN Headline News
I04 13 /21.5°W Documentary
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I07 13 /31.0°W Live Coverage of Libyan "People's Committees"
I07 24 /31.0°W Cordialmente (Cordially): Periodistico (Journalism).

1615 GMT

I17 20 /57.0°E English Serial

1625 GMT

I08 11 /34.5°W Hola, Chicos! (Hello, Kids!)

1630 GMT

I01 24 /1.0°W SPORTS-ESPN Sportscenter
I04 13 /21.5°W News in English
I08 11 /34.5°W Los Electroduendes (The Electrogoblins)

1700 GMT

I01 24 /1.0°W CNN Take Two: Hour 2.
I04 13 /21.5°W Arabian Soap Opera
I04 17 /21.5°W Children's Programming
I05 24 /24.5°W Visnews London: Early evening news feeds for SABC Johannesburg.
I07 24 /31.0°W 20 Mujeres (20 Women): Periodistico (Journalism).
I08 11 /34.5°W Barrio Sesamo (Sesame Street): Children's programming.
I17 20 /57.0°E News: Arabic.
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1730 GMT

I08 11 /34.5°W Nuestras Islas (Our Islands)
I10 22 /53.0°W Edicion Uno (First Edition): Noticias (News).
I17 20 /57.0°E Arabic Serial

1745 GMT

I08 15 /34.5°W Carta de Ajuste (Test Card)
I10 22 /53.0°W Chispita: Teleserie (Teleseries).

1755 GMT

I08 15 /34.5°W Apertura y Presentacion (Opening)

1800 GMT

I01 24 /1.0°W CNN Headline News
I04 17 /21.5°W Sports
I07 5 /31.0°W Children's Programming
I08 11 /34.5°W Viva la Tarde! (Long Live the Afternoon!)
I08 15 /34.5°W Agenda

1815 GMT

I08 15 /34.5°W En Marcha (In Progress)
I10 22 /53.0°W Un Minuto en la Moda (One Minute in Fashion)

1820 GMT

I10 22 /53.0°W La Feira (The Hustler)

1830 GMT

I04 13 /21.5°W News in Arabic
I04 17 /21.5°W Zaire TV News
I17 20 /57.0°E News: English.

1835 GMT

I08 15 /34.5°W Niels Olgersson

1855 GMT

I04 13 /21.5°W Weather Report
I10 22 /53.0°W Los Poderes de Matthew Star (The Powers of Matthew Star): Serie de aventuras y ficcion (Adventure series).

1900 GMT

I01 24 /1.0°W CNN Continues
I04 13 /21.5°W Current Affairs Program
I04 17 /21.5°W French Language Entertainment Program
I07 24 /31.0°W Telejuegos (Telegames): Infantil (Children's programming).
I08 11 /34.5°W Al Mil Por Mil (To the Thousand by Thousand)
I17 20 /57.0°E Program Review-Local Program

1910 GMT

I05 24 /24.5°W OTI: SIN News.
I08 15 /34.5°W Tiempos Modernos (Modern Times)

1930 GMT

I04 13 /21.5°W Light Entertainment Show
I08 11 /34.5°W Verano 8:30 P.M. Magazine (Summer 8:30 P.M. Magazine)

1950 GMT

I08 24 /34.5°W UPITN DSSA News Unilaterals: Including Globo, Canadian CTV, and US network feeds.

2000 GMT

I07 13 /31.0°W Libyan TV News
I07 5 /31.0°W Moroccan Soap Opera
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I10 22 /53.0°W Dibujos Animados (Cartoons)

2010 GMT

I08 15 /34.5°W Brass: Serie (Series).

2020 GMT

I10 22 /53.0°W MOVIE-Tardes de Cine (The Afternoon Movie)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I01 24 /1.0°W CNN Headline News
I07 13 /31.0°W Weather
I16 24 /60.0°E Visnews London for Asia and Pacific
I17 20 /57.0°E News in Brief-Holy Koran

2035 GMT

I07 13 /31.0°W Current Affairs program
I08 11 /34.5°W El Hombre y la Tierra (Man and the Earth)
I08 15 /34.5°W Suspiros de Espana (Sights of Spain)

2040 GMT

I05 24 /24.5°W Visnews London

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

I01 24 /1.0°W CNN Take Two: Hour 1.
I07 13 /31.0°W Light Entertainment Show
I07 24 /31.0°W Los Duke de Hazzard (The Dukes of Hazzard): Serie (Series).
I07 5 /31.0°W Marocaine TV News & Weather
I08 15 /34.5°W La Duna Movil (The Dune Mobile)
S05 -1 /53.0°E Segodnya V Mire (Today in the World): World News.

2105 GMT

I08 11 /34.5°W La Joya de la Corona (The Jewel of the Crown)

2130 GMT

I04 13 /21.5°W Late News in Arabic
I07 5 /31.0°W Light Entertainment Program
I16 24 /60.0°E Visnews London

2140 GMT

I05 24 /24.5°W Visnews

2200 GMT

I01 24 /1.0°W AFRTS Advisory Block: Schedules, advisories and color bars.
I04 13 /21.5°W Close
I05 24 /24.5°W CBS International: News unilaterals to South America.
I07 24 /31.0°W Gente Como la Gente (People Like People): Telecomidia (Comedy).
I08 11 /34.5°W Secuencias (Sequences)
I08 15 /34.5°W Mozart
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.

2210 GMT

I05 24 /24.5°W NBC News Feeds

2215 GMT

I04 17 /21.5°W Late News
I07 5 /31.0°W Close

2230 GMT

I01 24 /1.0°W ABC World News Tonight
I07 24 /31.0°W Noticiero (News).

2240 GMT

I04 17 /21.5°W Close

2245 GMT

I07 13 /31.0°W Close

2300 GMT

I01 24 /1.0°W NBC Nightly News
I05 24 /24.5°W UPITN for Latin America
I07 24 /31.0°W Mesa de Noticias (News Desk): Programa humoristico (Comedy program).
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I10 22 /53.0°W Chispita (Little Spark)
S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

2320 GMT

I08 11 /34.5°W Teledeporte (Sports News)

All times are Greenwich Meridian time

2325 GMT

I08 15 /34.5°W Telediario: Noticias (News).

2330 GMT

I01 24 /1.0°W CBS Evening News
I08 11 /34.5°W Despedida y Cierre (Farewell and Sign Off)
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).

2355 GMT

I08 15 /34.5°W Despedida y Cierre (Close)

WEDNESDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I07 24 /31.0°W Colorin, Colorado (Coloring, Colored): Telenovela para la juventud (Children's program).

0025 GMT

I10 22 /53.0°W TV Tiempo (TV Time)

0030 GMT

I10 22 /53.0°W El Auto Fantastico (The Fantastic Auto)

0100 GMT

I01 24 /1.0°W CBS Evening News: West Coast Feed
I07 24 /31.0°W Noche de Estreno (Debut Night)

0130 GMT

I01 24 /1.0°W MacNeil, Lehrer Report
I10 22 /53.0°W Dallas

0200 GMT

S05 -1 /53.0°E Vremya (Time): The Moscow Morning News.

0230 GMT

I01 24 /1.0°W CNN Continues
I10 22 /53.0°W Edicion Dos (Second Edition): Noticias (News).

0250 GMT

I10 22 /53.0°W Cine de Trasnoche (Movie)

0300 GMT

I07 24 /31.0°W Titulares (Titles): Informativo (Report).

0315 GMT

I07 24 /31.0°W Kenia Sharp Club: Serie (Series).

0330 GMT

I01 24 /1.0°W NBC Tonight Show starring Johnny Carson

0400 GMT

S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0430 GMT

I01 24 /1.0°W CNN Sports Tonite

0500 GMT

I01 24 /1.0°W ABC Nightline

0530 GMT

I01 24 /1.0°W CNN Headline News

0600 GMT

I01 24 /1.0°W AFRTS Sign Off: With advisories if necessary, followed by CNN commerical feed.

0850 GMT

S05 -1 /53.0°E Dokumental'Nye Fil'my (Documentary Film)

1000 GMT

S04 6 /14.0°W Intervision News unilaterals from Afganistan, Mongolia, and Viet Nam

1050 GMT

S04 -1 /14.0°W Dokumental'Nye Fil'my (Documentary Film)

1100 GMT

I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I17 20 /57.0°E Royal Anthem-Holy Koran: Religious talk.

1130 GMT

I05 24 /24.5°W CBS and NBC News Feeds from London

1150 GMT

I17 20 /57.0°E Cartoon: Children's programming.

1230 GMT

I04 17 /21.5°W Zaire TV News
I07 24 /31.0°W Telescuela Tecnica (Technical School): Educativo (Educational).
I08 11 /34.5°W Carta de Ajuste (Test Card)
I17 20 /57.0°E Educational Program

1245 GMT

I08 11 /34.5°W Programacion de Cobertura Regional (Program of Regional Coverage)
S05 -1 /53.0°E Segodnya V Mire (Today in the World): World News.

1300 GMT

I01 24 /1.0°W Sign On
I04 17 /21.5°W Children's Programming
I07 24 /31.0°W Buen Dia Maria (Good Day Maria): Clases de gimasia (Gymnastics classes).
S04 6 /14.0°W UPITN News from London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W ABC World News AM

1335 GMT

I04 17 /21.5°W Close
I17 20 /57.0°E Prayers

1340 GMT

I17 20 /57.0°E Arabic Serial

1355 GMT

I08 11 /34.5°W Conexion con la Programacion Nacional (The National Program Connection)

1400 GMT

F01 1 /8.0°W AITV News Paris

I01 24 /1.0°W NBC Today Show
I05 24 /24.5°W UPITN News London
I07 13 /31.0°W Color Bars
I07 24 /31.0°W Smith y Jones (Smith and Jones): Serie (Series).
I08 11 /34.5°W Telediario (Telediario): Noticias (News).
I10 22 /53.0°W Matinal Infantil (Children's Morning Show)

1430 GMT

I05 24 /24.5°W Visnews for Middle East and Europe
I17 20 /57.0°E Cultural Program

1435 GMT

I08 11 /34.5°W El Gran Heroe Americano (The Greatest American Hero): Comedia (Comedy).

1445 GMT

S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

1500 GMT

I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I07 24 /31.0°W Vivir Bien (To Live Well)
I17 20 /57.0°E News: Local.
S05 -1 /53.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1520 GMT

I17 20 /57.0°E SPORTS-Sports Magazine

1530 GMT

I07 24 /31.0°W Noticieros (News).
I08 11 /34.5°W Objetivo 92 (Objective 92)
I10 22 /53.0°W Festival de la Una (Festival for One)

1600 GMT

I01 24 /1.0°W CNN Headline News
I04 13 /21.5°W Documentary
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I07 13 /31.0°W Live Coverage of Libyan "People's Committees"
I07 24 /31.0°W Cordialmente (Cordially): Periodistico (Journalism).
I17 20 /57.0°E Cultural Program

1630 GMT

I01 24 /1.0°W ESPN Sportscenter or CNN Headline News
I04 13 /21.5°W News in English

1655 GMT

I08 11 /34.5°W Hola, Chicos! (Hello, Kids!)

1700 GMT

I01 24 /1.0°W CNN Take Two: Hour 2.
I04 13 /21.5°W Arabian Soap Opera
I04 17 /21.5°W Children's Programming
I05 24 /24.5°W Visnews London: Early evening news feeds for SABC Johannesburg.
I07 24 /31.0°W 20 Mujeres (20 Women): Periodistico

I08 11 /34.5°W Barrio Sesamo (Sesame Street): Children's programming.
I17 20 /57.0°E News: Arabic.
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1725 GMT

I17 20 /57.0°E Arabic Serial

1730 GMT

I08 11 /34.5°W Letra Pequena (Little Letter)
I10 22 /53.0°W Edicion Uno (First Edition): Noticias (News).

1745 GMT

I08 15 /34.5°W Carta de Ajuste (Test Card)
I10 22 /53.0°W Chispita: Teleseie (Teleseries).

1755 GMT

I08 15 /34.5°W Apertura y Presentacion (Opening)

1800 GMT

I01 24 /1.0°W CNN Headline News
I04 17 /21.5°W Sports
I07 5 /31.0°W Children's Programming
I08 11 /34.5°W Viva la Tarde! (Long Live the Afternoon!)
I08 15 /34.5°W Agenda

1815 GMT

I08 15 /34.5°W En Marcha (In Progress)
I10 22 /53.0°W Un Minuto eb la Moda (One Minute in Fashion)

1820 GMT

I10 22 /53.0°W La Feira (The Hustler): Teleserie (Teleseries).

1830 GMT

I01 24 /1.0°W SPORTS-American Interests
I04 13 /21.5°W News in Arabic
I04 17 /21.5°W Zaire TV News
I08 15 /34.5°W Niels Olgersson
I17 20 /57.0°E English News-Program Review

1855 GMT

I04 13 /21.5°W Weather Report
I10 22 /53.0°W Arean 12: Serie policial (Police series).

1900 GMT

I01 24 /1.0°W McLaughlin Group
I04 13 /21.5°W Current Affairs Program
I04 17 /21.5°W French Language Entertainment Program
I07 24 /31.0°W Telejuegos (Telegames): Infantil (Children's programming).
I08 11 /34.5°W Dentro de un Orden (Inside an Order)
I08 15 /34.5°W Tablon de Anuncios (Announcement Table)
I17 20 /57.0°E Best Sellers

1910 GMT

I05 24 /24.5°W OTI: SIN News.

1930 GMT

I01 24 /1.0°W Entertainment This Week: Entertainment news program from Hollywood, California.

ATLANTIC OCEAN REGION

All times are Greenwich Meridian time

I04 18 /21.5°W Light Entertainment Show
I05 24 /24.5°W RTP News from Lisbon, Portugal
I08 11 /34.5°W Verano 8:30 P.M. Magazine (Summer 8:30 P.M. Magazine)
I08 15 /34.5°W Con Las Manos en la Masa (Caught in the Act)

1950 GMT

I08 24 /34.5°W UPITN DSSA News Unilaterals: Including Globo, Canadian CTV, and US network feeds.

2000 GMT

I07 18 /31.0°W Libyan TV News
I07 5 /31.0°W Moroccan Soap Opera
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I08 15 /34.5°W Programa Especial (Special Program)
I10 22 /53.0°W Dibujos Animados (Cartoons)

2020 GMT

I10 22 /53.0°W MOVIE-Tardes de Cine (The Afternoon Movie)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I01 24 /1.0°W CNN Headline News
I07 18 /31.0°W Weather
I16 24 /60.0°E Visnews London for Asia and Pacific
I17 20 /57.0°E News in Brief-Holy Koran

2035 GMT

I07 18 /31.0°W Current Affairs program
I08 11 /34.5°W Session de Noche (Night Session)

2045 GMT

I05 24 /24.5°W Visnews London
I17 20 /57.0°E Royal Anthem

2100 GMT

I01 24 /1.0°W CNN Take Two: Hour 1.
I07 18 /31.0°W Light Entertainment Show
I07 24 /31.0°W Simon y Simon (Simon and Simon): Serie (Series).
I07 5 /31.0°W Marocaine TV News & Weather
I08 15 /34.5°W Jazz Entre Amigos (Jazz Among Friends)
S05 -1 /53.0°E Segodnya V Mire (Today in the World): World News.

2130 GMT

I04 18 /21.5°W Late News in Arabic
I07 5 /31.0°W Light Entertainment Program
I16 24 /60.0°E Visnews London

2200 GMT

I01 24 /1.0°W AFRTS Advisory Block: Schedules, advisories and color bars.
I04 18 /21.5°W Close
I05 24 /24.5°W CBS International: News unilaterals to South America.
I07 24 /31.0°W Gente Como la Gente (People Like People): Telecomedia (Telecomedy).
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.

2205 GMT

I08 15 /34.5°W Tatuaje (Tattoo)

2215 GMT

I04 17 /21.5°W Late News
I07 5 /31.0°W Close

2230 GMT

I01 24 /1.0°W ABC World News Tonight
I07 24 /31.0°W Noticiero (News).

2235 GMT

I08 11 /34.5°W Las Cuentas Claras (Clear Accounts)

2240 GMT

I04 17 /21.5°W Close

2245 GMT

I07 18 /31.0°W Close
I10 22 /53.0°W Chispita (Little Spark)

2300 GMT

I01 24 /1.0°W NBC Nightly News
I07 24 /31.0°W Mesa de Noticias (News Desk): Humoristico (Comedy program).
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I08 15 /34.5°W Enredo (Plot)
S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

2320 GMT

I08 11 /34.5°W Teledeporte (Sports News)

2330 GMT

I01 24 /1.0°W CBS Evening News
I08 11 /34.5°W Testimonio (Testimony)
I08 15 /34.5°W Telediario: Noticias (News).
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).

2335 GMT

I08 11 /34.5°W Despedida y Cierre (Farewell and Sign Off)

THURSDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I07 24 /31.0°W Historias de la Argentina Secreta (Stories of the Secret Argentina): Documental (Documentary).
I08 15 /34.5°W Despedida y Cierre (Close)

0030 GMT

I10 22 /53.0°W Magnum, P.I.: Serie de accion (Action series).

0100 GMT

I01 24 /1.0°W CBS Evening News: West Coast Feed
I07 24 /31.0°W Cine (Movie)

0130 GMT

I01 24 /1.0°W MacNeil, Lehrer Report
I10 22 /53.0°W Quincy

0200 GMT

S05 -1 /53.0°E Vremya (Time): The Moscow Morning News.

0230 GMT

I01 24 /1.0°W CNN Continues
I10 22 /53.0°W Edicion Dos (Second Edition): Noticias (News).

0300 GMT

I07 24 /31.0°W Kenia Sharp Club: Serie (Series).

0315 GMT

I10 22 /53.0°W Cine de Trasnoche (Movie)

0330 GMT

I01 24 /1.0°W NBC Tonight Show starring Johnny Carson

0400 GMT

S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0430 GMT

I01 24 /1.0°W CNN Sports Tonite

0500 GMT

I01 24 /1.0°W ABC Nightline
I10 22 /53.0°W Cierre (Close)

0530 GMT

I01 24 /1.0°W CNN Headline News

0600 GMT

I01 24 /1.0°W AFRTS Sign Off: With advisories if necessary, followed by CNN commercial feed.

0850 GMT

S05 -1 /53.0°E Dokumental'Nye Fil'my (Documentary Film)

1000 GMT

I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.

1030 GMT

I05 24 /24.5°W CBS and NBC News Feeds from London

1050 GMT

S04 -1 /14.0°W Dokumental'Nye Fil'my (Documentary Film)

1100 GMT

I17 20 /57.0°E Royal Anthem-Holy Koran: Religious talk.

1125 GMT

I17 20 /57.0°E Cartoon: Children's programming.

1200 GMT

I17 20 /57.0°E Educational Program

1230 GMT

I04 17 /21.5°W Zaire TV News
I07 24 /31.0°W Telescuela Tecnica (Technical School): Educativo (Educational).
I08 11 /34.5°W Carta de Ajuste (Test Card)
I17 20 /57.0°E Indian Film

1245 GMT

I08 11 /34.5°W Programacion de Cobertura Regional (Program of Regional Coverage)
S05 -1 /53.0°E Segodnya V Mire (Today in the World): World News.

1300 GMT

I01 24 /1.0°W Sign On
I04 17 /21.5°W Children's Programming
I05 24 /24.5°W UPITN News London
I07 24 /31.0°W Buen Dia Maria (Good Day Maria): Clases de gimasia (Gymnastics classes).
S04 6 /14.0°W UPITN News from London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W ABC World News AM
I05 24 /24.5°W Visnews for Middle East and Europe

1335 GMT

I04 17 /21.5°W Close
I17 20 /57.0°E Prayers

1355 GMT

I08 11 /34.5°W Conexion con la Programacion Nacional (The National Program Conection)

1400 GMT

F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W NBC Today Show
I07 18 /31.0°W Color Bars
I07 24 /31.0°W Smith y Jones (Smith and Jones): Serie (Series).
I08 11 /34.5°W Telediario (Teledaily)
I10 22 /53.0°W Los Muppets (The Muppets: Programa infantil (Children's programming).

1425 GMT

I10 22 /53.0°W La Cocina de Monica (Monica's Kitchen)

1430 GMT

I10 22 /53.0°W Mazapan: Programa infantil (Children's programming).
I17 20 /57.0°E Cultural Program

1435 GMT

I08 11 /34.5°W El Gran Heroe Americano (The Greatest American Hero): Comedia (Comedy).

1445 GMT

S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

1500 GMT

I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I07 24 /31.0°W Vivir Bien (To Live Well)
I10 22 /53.16128° Festival de la Una (Festival for One)
I17 20 /57.0°E News: Local.
S05 -1 /53.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1520 GMT

I17 20 /57.0°E Local Program

1525 GMT

I08 11 /34.5°W El Kiosco

1530 GMT

I07 24 /31.0°W Noticieros (News).

1600 GMT

I01 24 /1.0°W CNN Headline News
I04 13 /21.5°W Documentary
I05 24 /24.5°W Eurovision
Brussels: European News Unilateral Exchanges.
I07 13 /31.0°W Live Coverage of Libyan "People's Committees"
I07 24 /31.0°W Cordialmente (Cordially): Periodistico (Journalism).
I17 20 /57.0°E English Serial
S05 -1 /53.0°E Leninskij Universitet Millionov (Lenin University for the Millions)

1615 GMT

I08 11 /34.5°W Hola Chicos! (Hello Kids!)

1620 GMT

I08 11 /34.5°W Los Amigos del Valle Verde (Friends of the Green Valley)

1630 GMT

I01 24 /1.0°W SPORTS-ESPN Sportscenter
I04 13 /21.5°W News in English

1700 GMT

I01 24 /1.0°W CNN Take Two: Hour 2.
I04 13 /21.5°W Arabian Soap Opera
I04 17 /21.5°W Children's Programming
I05 24 /24.5°W Visnews London: Early evening news feeds for SABC Johannesburg.
I07 24 /31.0°W 20 Mujeres (20 Women): Periodistico (Journalism).
I08 11 /34.5°W Barrio Sesamo (Sesame Street): Children's programming.
I10 22 /53.0°W Edicion Uno (First Edition): Noticias (News).
I17 20 /57.0°E News: Arabic.
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1725 GMT

I08 11 /34.5°W SPORTS-Toros (Bullfights)

1730 GMT

I10 22 /53.0°W Chispita: Teleserie (Teleseries).

1745 GMT

I08 15 /34.5°W Carta de Ajuste (Test Card)

1755 GMT

I08 15 /34.5°W Apertura y Presentacion (Opening)

1800 GMT

I01 24 /1.0°W CNN Headline News
I04 17 /21.5°W Sports
I07 5 /31.0°W Children's Programming
I08 15 /34.5°W Agenda
S04 -1 /14.0°W Leninskij Universitet Millionov (Lenin University for the Millions).

1805 GMT

I10 22 /53.0°W Amalia Batista: Teleserie (Teleseries).

1815 GMT

I08 15 /34.5°W En Marcha (in Progress)

1830 GMT

I01 24 /1.0°W CNN Continues
I04 13 /21.5°W News in Arabic
I04 17 /21.5°W Zaire TV News
I08 15 /34.5°W Niels Olgersson
I17 20 /57.0°E English News-Program Review

1855 GMT

I04 13 /21.5°W Weather Report

1900 GMT

I01 24 /1.0°W CNN Continues
I04 13 /21.5°W Current Affairs Program
I04 17 /21.5°W French Language Entertainment Program
I07 24 /31.0°W Telejuegos (Telegames): Infantil (Children's programming).
I08 15 /34.5°W A-Uan-Ba-Buluba-Balam-Bambu
I10 22 /53.0°W Fama (Fame): Drama serie (Drama Series).

1910 GMT

I05 24 /24.5°W OTI: SIN News.

1930 GMT

I01 24 /1.0°W Solid Gold: American pop music show counts down the top ten tunes of the week.
I04 13 /21.5°W Light Entertainment Show
I08 11 /34.5°W Verano 8:30 P.M. Magazine (Summer 8:30 P.M. Magazine)

1950 GMT

I08 24 /34.5°W UPITN DSSA News Unilaterals: Including Globo, Canadian CTV, and US network feeds.

2000 GMT

I07 13 /31.0°W Libyan TV News
I07 5 /31.0°W Moroccan Soap Opera
I08 11 /34.5°W Telediario (Telediaily): Noticias (News).
I08 15 /34.5°W Fila 7 (File 7)

2010 GMT

I10 22 /53.0°W MOVIE-Tardes de Cine (The Afternoon Movie)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I01 24 /1.0°W CNN Headline News
I07 13 /31.0°W Weather
I16 24 /60.0°E Visnews London for Asia and Pacific
I17 20 /57.0°E News in Brief-Holy Koran

2035 GMT

I07 13 /31.0°W Current Affairs program
I08 11 /34.5°W El Cuerpo Humano (The Human Body)

2040 GMT

I05 24 /24.5°W Visnews London

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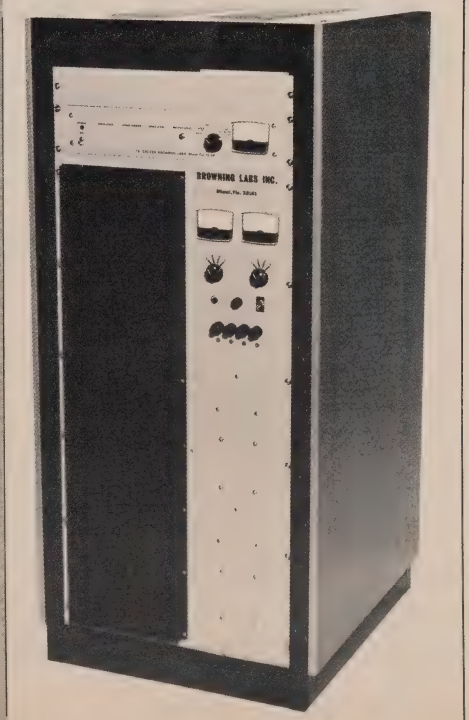


ATLANTIC OCEAN REGION

All times are Greenwich Meridian time

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

I01 24 /1.0°W CNN Take Two: Hour 1.
I07 18 /31.0°W Light Entertainment Show
I07 24 /31.0°W El Principe de Otra Galaxia (The Prince from Another Galaxy: Serie (Series).
I07 5 /31.0°W Marocaine TV News & Weather
S05 -1 /53.0°E Segodnya V Mire (Today in the World): World News.

2105 GMT

I08 11 /34.5°W Si Lo Se No Vengo (If I Don't Come to You)
I08 15 /34.5°W Cine Club (Movie Club)

2130 GMT

I04 18 /21.5°W Late News in Arabic
I05 24 /24.5°W Visnews
I07 5 /31.0°W Light Entertainment Program
I16 24 /60.0°E Visnews London

2200 GMT

I01 24 /1.0°W AFRTS Advisory Block: Schedules, advisories and color bars.
I04 18 /21.5°W Close
I07 24 /31.0°W Gente Como la Gente (People Like People): Telecomedia (Telecomedy).
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.

2205 GMT

I05 24 /24.5°W CBS International: News unilaterals to South America.
I08 11 /34.5°W En Portada (In Front)

2210 GMT

I05 24 /24.5°W NBC News Feeds

2215 GMT

I04 17 /21.5°W Late News
I07 5 /31.0°W Close

2220 GMT

I10 22 /53.0°W Marta a la Ocho (Marta at Eight)

2230 GMT

I01 24 /1.0°W ABC World News Tonight
I07 24 /31.0°W Noticiero (News).

2240 GMT

I04 17 /21.5°W Close

2245 GMT

I07 18 /31.0°W Close

2300 GMT

I01 24 /1.0°W NBC Nightly News
I05 24 /24.5°W UPITN for Latin America
I07 24 /31.0°W Mesa de Noticias (News Desk): Telecomidia (Comedy).
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I08 15 /34.5°W Seis Clases de Luz (Six Classes of Light)
S04 -1 /14.0°W Segodnya V Mire (Today in the World)

2320 GMT

I08 11 /34.5°W Teledeporte (Sports News)

2330 GMT

I01 24 /1.0°W CBS Evening News
I08 15 /34.5°W Telediario: Noticias (News).
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).

2335 GMT

I08 11 /34.5°W Despedida y Cierre (Farewell and Sign Off)

FRIDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I07 24 /31.0°W Veinte Hombres (Twenty Men): Periodistico (Journalism).
I08 15 /34.5°W Tiempo de Creer (Time To Grow)

0015 GMT

I08 15 /34.5°W Despedida y Cierre (Close)

0030 GMT

I10 22 /53.0°W Franja Cultural (Cultural Fringe)

0100 GMT

I01 24 /1.0°W CBS Evening News: West Coast Feed
I07 24 /31.0°W Situacion Limite (Situation Limited)

0130 GMT

I01 24 /1.0°W MacNeil, Lehrer Report

0200 GMT

I07 24 /31.0°W El Pais Que Debemos Cambiar (The Country We Must Change): Periodistico (Journalism).
S05 -1 /53.0°E Vremya (Time): The Moscow Morning News.

0230 GMT

I01 24 /1.0°W CNN Continues
I10 22 /53.0°W Edicion Dos (Second Edition): Noticias (News).

0300 GMT

I07 24 /31.0°W Kenia Sharp Club: Serie (Series).
I10 22 /53.0°W Clasicos del Cine (Movie Classics)

0305 GMT

S05 -1 /53.0°E Fil'm (Film)

0330 GMT

I01 24 /1.0°W NBC Tonight Show starring Johnny Carson

0400 GMT

S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0430 GMT

I01 24 /1.0°W CNN Sports Tonite

0500 GMT

I01 24 /1.0°W ABC Nightline
I10 22 /53.0°W Cierre (Close)

0505 GMT

S04 -1 /14.0°W Fil'm (Film)

0530 GMT

I01 24 /1.0°W CNN Headline News

0600 GMT

I01 24 /1.0°W AFRTS Sign Off: With advisories if necessary, followed by CNN commercial feed.
I17 20 /57.0°E Royal Anthem

0605 GMT

I17 20 /57.0°E Holy Koran: Religious talk.

0630 GMT

I17 20 /57.0°E Cartoon: Children's programming.

0700 GMT

I17 20 /57.0°E World of Children

0745 GMT

I17 20 /57.0°E Health Program

0800 GMT

I17 20 /57.0°E Prayers

0845 GMT

I17 20 /57.0°E Religious Program

0850 GMT

S05 -1 /53.0°E Dokumental'Nye Fil'my (Documentary Film)

0900 GMT

I17 20 /57.0°E News in Brief

0905 GMT

I17 20 /57.0°E SPORTS-Football

1035 GMT

I17 20 /57.0°E Children's Program: English.

1050 GMT

S04 -1 /14.0°W Dokumental'Nye Fil'my (Documentary Film)

1100 GMT

I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I17 20 /57.0°E English Program

1130 GMT

I05 24 /24.5°W CBS and NBC News Feeds from London

1200 GMT

I17 20 /57.0°E Arabic Film

1230 GMT

I04 17 /21.5°W Zaire TV News
I07 24 /31.0°W Telescuela Tecnica (Technical School): Educativo (Educational).
I08 11 /34.5°W Carta de Ajuste (Test Card)

1245 GMT

I08 11 /34.5°W Programacion de Cobertura Regional (Program of Regional Coverage)
S05 -1 /53.0°E Segodnya V Mire (Today in the World): World News.

1300 GMT

I01 24 /1.0°W Sign On
I04 17 /21.5°W Children's Programming
I07 24 /31.0°W Buen Dia Maria (Good Day Maria): Clases de gimasia (Gymnastics classes).
S04 6 /14.0°W UPITN News from London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W ABC World News AM
S05 -1 /53.0°E Russkaya Rech' (Russian Language)

1335 GMT

I04 17 /21.5°W Close

1350 GMT

I17 20 /57.0°E Variety

1355 GMT

I08 11 /34.5°W Conexion con la Programacion Nacional (The National Program Connection)

1400 GMT

F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W NBC Today Show
I05 24 /24.5°W UPITN News London
I07 18 /31.0°W Color Bars
I07 24 /31.0°W Smith y Jones (Smith and Jones): Serie
I08 11 /34.5°W Telediario-Primera Edicion (Teledaily-First Edition)
I10 22 /53.0°W Matinal Infantil (Children's Morning Show)

1430 GMT

I05 24 /24.5°W Visnews for Middle East and Europe
I10 22 /53.0°W Mi Bella Genio (My Beautiful Genie)

1435 GMT

I08 11 /34.5°W Session de Tarde (Afternoon Session)

1445 GMT

I17 20 /57.0°E Songs
S04 -1 /14.0°W Segodnya V Mire (Today in the World)

1500 GMT

I07 24 /31.0°W Vivir Bien (To Live Well)
I17 20 /57.0°E Faces and Events
S05 -1 /53.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1505 GMT

I10 22 /53.16128° La Cocina de Monica (Monica's Kitchen)

1510 GMT

I10 22 /53.0°W Festival de la Una (Festival at One): Concursos, canciones y mucho humor (Contests, songs and humor).

1530 GMT

I07 24 /31.0°W Noticieros (News).
S04 -1 /14.0°W Russkaya Rech' (Russian Language)

1600 GMT

I01 24 /1.0°W CNN Headline News
I04 18 /21.5°W Documentary
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.

I07 13 /31.0°W Live Coverage of Libyan "People's Committees"
I07 24 /31.0°W Cordialmente (Cordially): Periodistico (Journalism).
I17 20 /57.0°E Arabic Serial

1625 GMT

I08 11 /34.5°W Hola, Chicos! (Hello, Kids!)

1630 GMT

I01 24 /1.0°W ESPN Sportscenter or CNN Headline News
I04 13 /21.5°W News in English
I08 11 /34.5°W Scooby Doo: Dibujos animados (Cartoons).

1700 GMT

I01 24 /1.0°W CNN Take Two: Hour 2.
I04 13 /21.5°W Arabian Soap Opera
I04 17 /21.5°W Children's Programming
I05 24 /24.5°W Visnews London: Early evening news feeds for SABC Johannesburg.
I07 24 /31.0°W 20 Mujeres (20 Women): Periodistico (Journalism).
I08 11 /34.5°W Barrio Sesamo (Sesame Street): Children's programming.
I17 20 /57.0°E News: Arabic.
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1710 GMT

I10 22 /53.0°W Edicion Uno (First Edition): Noticias (News).

1730 GMT

I08 11 /34.5°W Nosotros (We)
I17 20 /57.0°E SPORTS-Wrestling

1740 GMT

I10 22 /53.0°W Bianca Vidal: Serial.

1745 GMT

I08 15 /34.5°W Carta de Ajuste (Test Card)

1755 GMT

I08 15 /34.5°W Apertura y Presentacion (Opening)

1800 GMT

I04 17 /21.5°W Sports
I07 5 /31.0°W Children's Programming
I08 11 /34.5°W Viva la Tarde! (Long Live the Afternoon!)
I08 15 /34.5°W Agenda

1815 GMT

I08 15 /34.5°W En Marcha (In Progress)
I10 22 /53.0°W Coralito (Little Chorus)

1830 GMT

I01 24 /1.0°W PBS Firing Line
I04 13 /21.5°W News in Arabic
I04 17 /21.5°W Zaire TV News
I08 15 /34.5°W La Clave (The Key)
I17 20 /57.0°E News: English.

1855 GMT

I04 13 /21.5°W Weather Report

1900 GMT

I01 24 /1.0°W CNN Continues
I04 13 /21.5°W Current Affairs Program
I04 17 /21.5°W French Language Entertainment Program
I07 24 /31.0°W Telejuegos (Telegames): Infantil (Children's programming).
I08 11 /34.5°W Al Galope (At a Gallop)
I10 22 /53.0°W El Hombre Increible (The Incredible Hulk)
I17 20 /57.0°E Program Review

1905 GMT

I17 20 /57.0°E Arabic Program

1910 GMT

I05 24 /24.5°W OTI: SIN News.

1930 GMT

I01 24 /1.0°W To Be Announced
I04 13 /21.5°W Drama or Action series
I08 11 /34.5°W Verano 8:30 P.M. Magazine (Summer 8:30 P.M. Magazine)

1950 GMT

I08 24 /34.5°W UPITN DSSA News Unilaterals: Including Globo, Canadian CTV, and US network feeds.

2000 GMT

I01 24 /1.0°W To Be Announced
I07 13 /31.0°W Libyan TV News
I07 5 /31.0°W Moroccan Soap Opera
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I10 22 /53.0°W Dibujos Animados (Cartoons)

2015 GMT

I17 20 /57.0°E News in Brief-Holy Koran

2020 GMT

I10 22 /53.0°W MOVIE-Tardes de Cine (The Afternoon Movie)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I01 24 /1.0°W CNN Headline News
I07 13 /31.0°W Weather
I16 24 /60.0°E Visnews London for Asia and Pacific

2035 GMT

I07 13 /31.0°W Current Affairs program
I08 11 /34.5°W Entre Amigos (Among Friends)

2040 GMT

I05 24 /24.5°W Visnews London

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

I01 24 /1.0°W CNN Take Two: Hour 1.
I07 13 /31.0°W Light Entertainment Show
I07 5 /31.0°W Marocaine TV News & Weather
S05 -1 /53.0°E Segodnya V Mire (Today in the World): World News.

2130 GMT

I04 13 /21.5°W Late news in Arabic
I05 24 /24.5°W Visnews
I07 24 /31.0°W La Sexta de ATC: Informativo (News).
I07 5 /31.0°W Light Entertainment Program
I16 24 /60.0°E Visnews London

2200 GMT

I01 24 /1.0°W AFRTS Advisory Block: Schedules, advisories and color bars.
I04 13 /21.5°W Close
I05 24 /24.5°W CBS International: News unilaterals to South America.
I07 24 /31.0°W Gente Como la Gente (People Like People): Telecomedia (Telecomedy).
I08 11 /34.5°W Las Aventuras del Bravo Soldado Schweik (The Adventures of Schweik, the Brave Soldier)
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.
I10 22 /53.0°W Segunda Franja Cultural (Second Cultural Fringe)

2210 GMT

I05 24 /24.5°W NBC News Feeds

2215 GMT

I04 17 /21.5°W Late News
I07 5 /31.0°W Close

2230 GMT

I01 24 /1.0°W ABC World News Tonight
I07 24 /31.0°W Noticiero (News).

2240 GMT

I04 17 /21.5°W Close

2245 GMT

I07 13 /31.0°W Close

2300 GMT

I01 24 /1.0°W NBC Nightly News
I05 24 /24.5°W UPITN for Latin America
I07 24 /31.0°W Mesa de Noticias (News Desk): Telecomedia (Comedy).
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I10 22 /53.0°W La Torre 10 (The Bullfight 10)
S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

2320 GMT

I08 11 /34.5°W Teledeporte (Sports News)

2330 GMT

I01 24 /1.0°W CBS Evening News
I08 15 /34.5°W Telediario: Noticias (News).
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).

SATURDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I07 24 /31.0°W SPORTS-El Deporte y El Hombre (Man and Sports)
I08 15 /34.5°W Despedida y Cierre (Close)

0030 GMT

I10 22 /53.0°W Noche de Peliculas (Movies Night)

0035 GMT

I08 11 /34.5°W Despedida y Cierre (Farewell and Sign Off)

0100 GMT

I01 24 /1.0°W CBS Evening News: West Coast Feed
I07 24 /31.0°W Los Especiales de ATC: Pelicula (Movie).

0130 GMT

I01 24 /1.0°W MacNeil, Lehrer Report

0200 GMT

I10 22 /53.0°W Edicion Dos (Second Edition): Noticias (News).
S05 -1 /53.0°E Vremya (Time): The Moscow Morning News.

0230 GMT

I01 24 /1.0°W CNN Continues

0255 GMT

I10 22 /53.0°W Cine Nocturno (Nighttime Movie)

0300 GMT

I07 24 /31.0°W Titulares (Titles): Informativo (Report).

0330 GMT

I01 24 /1.0°W NBC Tonight Show starring Johnny Carson
I07 24 /31.0°W Kenia Sharp Club: Serie (Series).

0400 GMT

S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0430 GMT

I01 24 /1.0°W CNN Sports Tonite

0500 GMT

I01 24 /1.0°W ABC Nightline

0530 GMT

I01 24 /1.0°W CNN Headline News

0600 GMT

I01 24 /1.0°W AFRTS Sign Off: With advisories if necessary, followed by CNN commercial feed.

1100 GMT

I17 20 /57.0°E Royal Anthem-Holy Koran: Religious talk.

1125 GMT

I17 20 /57.0°E Cartoon: Children's programming.

1145 GMT

I08 11 /34.5°W Carta de Ajuste (Test Card)

1150 GMT

I08 11 /34.5°W Apertura y Presentacion (Opening)

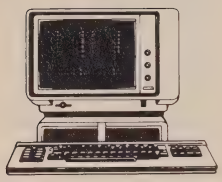
1155 GMT

I08 11 /34.5°W Loteria Nacional (National Lottery)

1200 GMT

I17 20 /57.0°E Educational Program

The Largest International Computer, Communications Satellite Antenna and Office Automation Exhibition in the Caribbean



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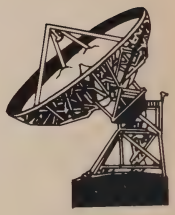

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- Extensive publicity campaign is being instituted to attract 6,000 corporate executives and government officials from Puerto Rico and the Caribbean
- Exhibition will feature latest products available and technical conference will present state-of-the-art innovations in technology.
- It is expected that over 120 major communications, computer, satellite antenna and office automation companies will exhibit. Among the companies showing their products will be:

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Burroughs Inc.
Cardion Electronics
Chapparel Communications
COMPAQ Computer
Computec Systems
COMSAT Telesystems
Digital Equipment
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Execucom Corp
GTE Communication
GENICOM Corp
Habibe Computer
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MDS Qantel
Mar Mol
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Radio Telephone Communications
Satellite Communications Center
Sola Basic
Solavolt International
Stromberg Carlson
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CONFERENCE PROGRAM TOPICS

8:30 am–4:00 pm
September 10–12

Office Automation
Computers in Business Applications
Specialized Software Applications
Manufacturing Automation
Production & Inventory Control
Data Communications Networks
Satellite Applications in the Caribbean
Cellular/Land Mobile Radio
Solar Power in Telecommunications
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FOR MORE INFORMATION CALL (305) 667-5150

1205 GMT

I08 11 /34.5°W Gente Joven (Young People)

1230 GMT

I04 17 /21.5°W Zaire TV News
I17 20 /57.0°E Program for Children

1300 GMT

I01 24 /1.0°W AFRTS Sign On: Schedules, advisories and color bars.
I04 17 /21.5°W Children's Programming
I17 20 /57.0°E Open Seasame: Children's Program in Arabic.
S04 6 /14.0°W UPITN News from London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W CNN Headline News
I07 24 /31.0°W La Fe del Hombre (Man's Faith)
I08 11 /34.5°W Las Cortes de Espana (The Courts of Spain)
I10 22 /53.0°W Teleduc '84

1335 GMT

I04 17 /21.5°W Close

1340 GMT

I17 20 /57.0°E Arabic Serial

1345 GMT

I08 15 /34.5°W Carta de Ajuste (Test Card)

1355 GMT

I08 15 /34.5°W Apertura y Presentacion (Opening)

1400 GMT

F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W PBS Washington Week In Review
I07 13 /31.0°W Color Bars
I07 24 /31.0°W Sabado Libre (Free Saturday): Infantil (Children's programming).
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I08 15 /34.5°W Estadio 2 (Stadium 2)

1430 GMT

I01 24 /1.0°W Navy News This Week
I17 20 /57.0°E Cultural Program

1435 GMT

I08 11 /34.5°W Lucky Luke

1450 GMT

I10 22 /53.0°W La Naturaleza y El Hombre (Nature and Man)

1500 GMT

I01 24 /1.0°W CNN Continues
I07 24 /31.0°W Que se Vengan los Chicos (Which Children Will Come): Infantil (Children's programming).
I17 20 /57.0°E News: Local.
S05 -1 /53.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1505 GMT

I08 11 /34.5°W Primera Sesion (First Session)
I17 20 /57.0°E Cultural Program

1515 GMT

I10 22 /53.0°W Ciudad Del Sol (City of the Sun): Documental (Documentary).

1530 GMT

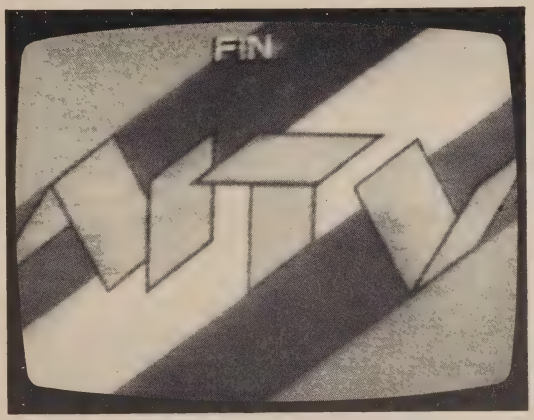
I01 24 /1.0°W CNN Headline News

1540 GMT

I10 22 /53.0°W SPORTS-Deportes Espectaculares (Spectacular Sports)

1600 GMT

I01 24 /1.0°W CBS Sports Event
I04 13 /21.5°W Documentary
I07 13 /31.0°W Live Coverage of Libyan "People's Committees"
I07 24 /31.0°W Por Siempre Chaplin (Chaplin Forever):



Secuencias de peliculas de Chalie Chaplin (Sequence of Charlie Chaplin movies).

I17 20 /57.0°E English Serial

1630 GMT

I04 13 /21.5°W News in English

1650 GMT

I10 22 /53.0°W Sabados Gigantes (Big Saturdays): Variedades (Variety).

1700 GMT

I01 24 /1.0°W ABC Wide World of Sports or other major sporting event
I04 13 /21.5°W Arabian Soap Opera
I04 17 /21.5°W Children's Programming
I07 24 /31.0°W El Hombre de la Atlantida (The Man of the Atlantis): Serie (Series).
I08 11 /34.5°W Los Sabios (The Scholars)
I17 20 /57.0°E News: Arabic.
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1725 GMT

I17 20 /57.0°E Arabic Serial

1800 GMT

I04 17 /21.5°W Sports
I07 5 /31.0°W Children's Programming
I08 11 /34.5°W De Pelicula (Of Films)
I08 15 /34.5°W En Paralelo, Los Jovenes (In Parallel, Youths)

1830 GMT

I04 13 /21.5°W News in Arabic
I04 17 /21.5°W Zaire TV News
I08 11 /34.5°W "V"
I08 24 /34.5°W NBC Sports NY
I17 20 /57.0°E News: English.

1855 GMT

I04 13 /21.5°W Weather Report

1900 GMT

I01 24 /1.0°W CBS Collegiate basketball or other major sporting event
I04 13 /21.5°W Current Affairs Program
I04 17 /21.5°W French Language Entertainment Program
I08 15 /34.5°W Candilejas (Little Oil Lamps)
I17 20 /57.0°E Local Program

1930 GMT

I04 13 /21.5°W Drama or Action Series
I08 11 /34.5°W Un Pais de Sagitario (Sagitario's Country)

2000 GMT

I07 13 /31.0°W Libyan TV News
I07 5 /31.0°W Moroccan Soap Opera
I08 11 /34.5°W Telediario (Teledaily): Noticias (News).
I08 15 /34.5°W La Ventana Electronica (The Electronic Window)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I07 13 /31.0°W Weather
I17 20 /57.0°E News in Brief-Holy Koran

2035 GMT

I07 13 /31.0°W Current Affairs program
I08 11 /34.5°W Informe Semenal (Weekly Report)

2040 GMT

I05 24 /24.5°W Visnews London

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

I07 13 /31.0°W Light Entertainment Show
I07 24 /31.0°W Dejalo Ser: Periodistico (Journalism).
I07 5 /31.0°W Marocaine TV News & Weather

2130 GMT

I04 13 /21.5°W Late News in Arabic
I07 5 /31.0°W Light Entertainment Program

2140 GMT

I08 11 /34.5°W MOVIE-Sabado Cine (Saturday Cinema)

2155 GMT

I08 15 /34.5°W Opera

2200 GMT

I04 13 /21.5°W Close
I05 24 /24.5°W CBS International: News unilaterals to South America.
I07 24 /31.0°W ATC Rally Turismo (ATC Tourist Rally)
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.

2215 GMT

I04 17 /21.5°W Late News
I07 5 /31.0°W Close

2240 GMT

I04 17 /21.5°W Close

2245 GMT

I07 13 /31.0°W Close

2300 GMT

I07 24 /31.0°W Historias de la Argentina Secreta (Stories of the Secret Argentina): Documental (Documentary).

2325 GMT

I10 22 /53.0°W Hasta Manana (Until Tomorrow): Children's programming.

2330 GMT

I10 22 /53.0°W Teletrece (Telethirteen)

2340 GMT

I08 11 /34.5°W Despedida y Cierre (Farewell and Sign Off)

INTELSAT IVA

Satellite	Location	Tr.#	Tr. Beam	Tr. Type	Polarization/ Center Frequency	Service Description/Country	Audio Info	Estimated Beam-Edge EIRP
I-IVA—F01	31.0 W	20	Global Beam	Half	RH-4095	**Argentina**	Non-video lease	—
I-IVA—F01	31.0 W	24	Global Beam	Full	RH-4055	**Argentina Televisora Color (ATC), Channel 7, Buenos Aires**—South American service	6.4 MHz S/C	23 dBW

INTELSAT V

Satellite	Location	Tr.#	Tr. Beam	Tr. Type	Polarization/ Center Frequency	Service Description/Country	Audio Info	Estimated Beam-Edge EIRP
I-V—F08	53.0 W	16	Global Beam	Half	RH-4065	**Denmark SCPC**—Radio Denmark	4049.625 MHz	20 dBW
I-V—F08	53.0 W	22	Global Beam	Half	RH-4135	**TV Chile, Channel 7, Santiago, Chile**	SCPC	19 dBW
I-V—F04	34.5 W	24	Global Beam	Half/Full	RH-4177.5	**International Video News Feed**	6.6 MHz S/C	Varies 17 – 24 dBW
I-V—F06	18.5 W	24	Global Beam	Half/Full	RH-4177.5	**Occasional Video**—Major international news feeds	6.6 MHz S/C	Varies 17 – 24 dBW
I-V—F02	1.0 W	7	Global Beam	Full	RH-3845	**Norway**	Non-video lease	—
I-V—F02	1.0 W	18	Global Beam	Half	RH-4065	**BrightStar**—Independent international satellite system providing video services between USA and UK	6.625 MHz S/C	18 dBW
I-V-F02	1.0 W	19	Global Beam	Full	RH-4085	**Portugal TV**	6.6 MHz S/C	18 dBW
I-V-F02	1.0 W	24	Global Beam	Full	RH-4175	**American Forces Radio and Television Service**—Provides live American programming to servicemen abroad.	6.8 MHz S/C	20 dBW

INTELSAT VA

Satellite	Location	Tr.#	Tr. Beam	Tr. Type	Polarization/ Center Frequency	Service Description/Country	Audio Info	Estimated Beam-Edge EIRP
I-VA—F11	27.5 W	3	West Hemi	Half	RH-3765	**Radio Y Television Peruana, Channel 7**—Lima, Peru, and Cadena 1 TV from Bogota, Colombia	6.6 MHz S/C and/or SCPC	24 dBW
I-VA—F11	27.5 W	5	West Hemi	Full	RH-3825	**Venezolana de Television Caracas**—Entertainment programming and coverage of Latin America affairs	6.2 MHz S/C	26 dBW
I-VA—F11	27.5 W	1	West Hemi	Half	RH-3725	**Inravision, Channel 1**—Bogota, Colombia	SCPC on tr. 9	22 dBW

Satellite	Location	Tr.#	Tr. Beam	Tr. Type	Polarization/ Center Frequency	Service Description/Country	Audio Info	Estimated Beam-Edge EIRP
I-VA—F11	27.5 W	9	West Hemi	Half	RH-3885	**Colombia**—TV Audio	3867 MHz/ SCPC transponder	—
I-VA—F11	27.5 W	24	Global Beam	Half/Full	RH-4177.5	**Occasional Video**— Major international news feeds	6.6 MHz S/C	Varies 17—24 dBW

GORIZONT

Satellite	Location	Tr.#	Tr. Beam	Tr. Type	Polarization/ Center Frequency	Service Description/Country	Audio Info	Estimated Beam-Edge EIRP
GORIZONT 7	14.0 W	1	Spot Beam	Full	RH-3675	**I Programma**—Soviet Television, Moscow	7.0 MHz S/C with companding	22 dBW
GORIZONT 7	14.0 W	1	Global Beam	Full	RH-3725	**Occasional Video**	7.5 MHz S/C	28 dBW
GORIZONT 7	14.0 W	4	North Hemi	Full	RH-3775	**Non-video SCPC**—Radio Moscow	3778.975 MHz	—
GORIZONT 7	14.0 W	6	Global Beam	Full	RH-3825	**Intersputnik and O.I.R.T. TV program exchanges**	7.5 MHz S/C	28 dBW
GORIZONT 7	14.0 W	9	North Hemi	Full	RH-3875	**Non-video wideband digital signals**	—	—
GORIZONT 7	14.0 W	11	North Hemi	Full	RH-3925	**Non-video narrowband digital signals**	—	—

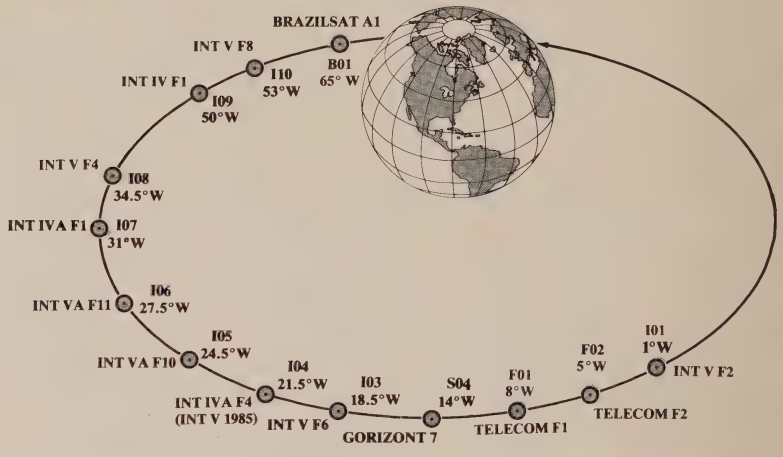
BRAZILSAT A1

Satellite	Location	Tr.#	Tr. Beam	Tr. Type	Polarization/ Center Frequency	Service Description/Country	Audio Info	Estimated Beam-Edge EIRP
SBTS A01	65.0 W	1	Spot Beam	Full	H-3720	**Rede Globo Network, Rio de Janeiro**— Portuguese-language Brazilian and American entertainment and sports	S/C	32 dBW
SBTS A01	65.0 W	5	Spot Beam	Full	H-3800	**Bandeirantes TV, Sao Paulo** —Portuguese-language Brazilian and American entertainment and sports	S/C	32 dBW
SBTS A01	65.0 W	6	Spot Beam	Full	V-3820	**Manchete TV (1986)**	S/C	32 dBW
SBTS A01	65.0 W	15	Spot Beam	Full	H-4000	**Embratel-Brazil**—Occasional video news and sports feeds	S/C	32 dBW
SBTS A01	65.0 W	24	Spot Beam	Full	V-4180	**EBT-TV**—Brazilian Educational TV Service	S/C	32 dBW

TELECOM F1

Satellite	Location	Tr.#	Tr. Beam	Tr. Type	Polarization/ Center Frequency	Service Description/Country	Audio Info	Estimated Beam-Edge EIRP
TELECOM F1	8.0 W	1	Semi-Global	Full	LH-3710	**AITV, Agence d'Images Television Francaise, News**—Paris	6.6 MHz S/C	24 dBW
TELECOM F1	8.0 W	4	Spot Beam	Full	LH-3780	**Non-video TDMA Telephony**	—	—

The Americas



I = INTELSAT (INT)
S = STATSIONAR
F = TELECOM (FRANCE)
B = BRAZILSAT

The following international satellite programming guide represents a typical TV schedule for 18 satellite transponders. Additional program schedules for other world-class satellite TV services will be added in the months ahead. While *Satellite World* makes every attempt to keep the program listings as current as possible, the reader should be aware that television networks regularly realign their programming, often without prior notice.

Programming times are listed in GMT; each program day begins at 0000 hours. Readers will find that programs listed between 0000 and 0600 GMT will actually air during the evening hours of the previous day according to local time. Use the time conversion chart bound into this issue to convert from GMT to local time.

ID. NO.	SATELLITE	TR. #	BEAM	SERVICE
B01	Brazilsat A01	1	Spot	Rede Globo, Rio de Janeiro, Brazil
B01	Brazilsat A01	5	Spot	Banderantes, Sao Paulo, Brazil
I10	Int. V F8	5	West Hemi	Imevision, Channel 7, Mexico City
I10	Int. V F8	14	Spot Beam	XHDF, Channel 13, Mexico City, Mexico
I10	Int V F8	22	Global	TV Chile, Santiago, Chile
I08	Int. V F4	23 or 24	Global	International News and Sports Feeds including Globo TV New York, Visnews, and UPITN
I07	Int. IVA F1	24	Global	Argentina Televisora Color, Channel 7, Buenos Aires, Argentina
I06	Int. VA F10	1	West Hemi	Inravision, Channel 1, Bogota, Colombia
I06	Int. VA F10	3	West Hemi	RTP, Channel 7, Lima, Peru
I06	Int. VA F10	5	West Hemi	Venezolana de Television, Channel 8, Caracas, Venezuela
I05	Int. V F3	23 or 24	Global	International News and Sports Feeds, including NBC, CBS International, Visnews, and UPITN
S04	Gorizont 7	1	Spot	I Programma, Moscow
S04	Gorizont 7	6	Global	Intervision News, UPITN News, and Intersputnik program exchanges
F01	Telecom F1	1	Semi-Global	AITV, Paris
I01	Int. IVA F2	19	Global	RTP, Lisbon, Portugal
I01	Int. IVA F2	24	Global	AFRTS (American Forces Radio and Television Service)

All times are Greenwich Meridian time

SUNDAY

0000 GMT

I01 24 /1.0°W SPORTS-ESPN Sports Event
I06 1 /27.5°W Sabados Felices (Happy Saturday)
I06 5 /27.5°W Sabado de Pelicula (Saturday Movie)
I07 24 /31.0°W Martin Eden: Miniserie.
I10 15 /53.0°W M.A.S.H.

0025 GMT

I10 22 /53.0°W Visiones (Visions)

0030 GMT

B01 1 /65.0°W Supercine: Filme (Movie).
I06 3 /27.5°W Telediario (Telediaily): Noticias (News).
I10 15 /53.0°W Hogan's Heroes
I10 22 /53.0°W Noche de Gigantes (Night of Giants)

0100 GMT

I06 1 /27.5°W Noticiero Promec (Promec's News)
I06 3 /27.5°W Cinco Continentes (Five Continents)
I07 24 /31.0°W Fiebre Amarilla (Yellow Fever)
I10 1 /53.0°W Reportaje: Noticias (News).
I10 14 /53.0°W Certamen Nacional de Music Popular Mexicana (National Contest of Popular Mexican Music)
I10 15 /53.0°W News
I10 5 /53.0°W De la Vida de las Mujeres (Of The Lives of Women)

0130 GMT

I06 1 /27.5°W Cita Con Los Clasicos (Meeting With the Classics)
I06 3 /27.5°W Cine de Oro Mexicano (Movie of Mexican Gold)
I10 1 /53.0°W 24 Horas (24 Hours): Noticiario (News).
I10 15 /53.0°W That's Incredible
I10 5 /53.0°W Sonido Optico (Optical Sound)

0200 GMT

I06 5 /27.5°W NOVELA-Corazon Indomito (Untamed Heart)
I10 1 /53.0°W Festival
I10 15 /53.0°W Too Close for Comfort
I10 5 /53.0°W Espectaculares del 7 (Channel 7 Spectaculars)

0215 GMT

B01 5 /65.0°W Sabado a Noite no Cinema (Saturday Night Movie)

0230 GMT

I06 1 /27.5°W Yurupari: La Transmision del Arte (Yurupari: the Transmission of Art)
I10 15 /53.0°W Eye on San Diego
I10 22 /53.0°W Cine de Media Noche (Midnight Movie)

0255 GMT

B01 1 /65.0°W MOVIE-Sessao da Gala (The Gala Movie)

0300 GMT

I06 1 /27.5°W NOVELA-Viviana
I06 5 /27.5°W Cine Para Adultos (Movie for Adults)
I10 1 /53.0°W MOVIE-Televicine Presenta (Television Movie Presentation)
I10 14 /53.0°W Siete Dias (Seven Days): Noticias (News).
I10 15 /53.0°W Cover Up

0315 GMT

B01 5 /65.0°W Cinema na Madrugada: Filmes variados (Movies).

0330 GMT

I01 24 /1.0°W SPORTS-CNN Sports Tonite
I06 3 /27.5°W MOVIE-Cine Estelar (Star Movie)
I07 24 /31.0°W Cine de Trasnoche (Movie)
I10 14 /53.0°W Camara Portatil (Portable Camera)

0400 GMT

I01 24 /1.0°W CNN Week in Japan
I06 1 /27.5°W Kojak
I10 14 /53.0°W Algo Especial (Something Special)
I10 15 /53.0°W Air Wolf
I10 5 /53.0°W Dia a Dia: Noticiario (News).
S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0430 GMT

I01 24 /1.0°W CNN Headline News
I06 3 /27.5°W Telediario (Telediaily): Noticias (News).

0445 GMT

B01 1 /65.0°W MOVIE-Coruja Colorida (The Red Owl): Mystery Movie.

0500 GMT

I01 24 /1.0°W AFRTS Sign Off or CNN Headline News
I06 1 /27.5°W Especial de la Noche (Special of the Night)
I06 5 /27.5°W Despedida
I10 1 /53.0°W Teleteatro (Movie)
I10 14 /53.0°W Tesis de los Partidos Politicos (Thesis of Political Parties)
I10 15 /53.0°W Mike Hammer
I10 5 /53.0°W Mandarina Mecanica

0520 GMT

S04 -1 /14.0°W Sportloto (Sport lottery): Drawing.

0530 GMT

I10 5 /53.0°W En Construccion (In Construction)
S04 -1 /14.0°W Budil'nik (The Alarm Clock)

0600 GMT

I06 1 /27.5°W Cierre (Close)
I10 1 /53.0°W MOVIE-Cine del Dos (Movie for Two): Pelicula (Movie).
S04 -1 /14.0°W Sluzhy Sovetskomu Soyuzu (I Serve the Soviet Union)

0630 GMT

I10 14 /53.0°W Letras Vivas (Living Letters)

0700 GMT

I10 14 /53.0°W Misterio en su Casa (Mystery in your House): Miniserie de suspenso (Mini-series of suspense).
S04 -1 /14.0°W Zdorov'e (Health)

0730 GMT

I10 14 /53.0°W Simbolos Patrios (Native Symbols)

0745 GMT

S04 -1 /14.0°W Utrennya Ya Pochta (The Morning Mail)

0815 GMT

S04 -1 /14.0°W Kinozhurnal (Film Magazine)

0830 GMT

S04 -1 /14.0°W Sel'Skij Chas (Village Hour)

0900 GMT

B01 5 /65.0°W Japan Pop Show: Musicais e variedades (Music and variety).

0930 GMT

S04 -1 /14.0°W Musical'Nyj Kiosk (Musical Kiosk)

0945 GMT

B01 5 /65.0°W Padrao (Pattern)

1000 GMT

B01 1 /65.0°W Santa Missa Em Seu Lar (Holy Mass)
B01 5 /65.0°W Terra Viva (Living Earth): Informativo sobre o campo (News about the countryside).

1100 GMT

B01 5 /65.0°W A Conquista da Terra (The Earth at Conquest): Jornalistico sobre o campo (Journalism concerning the countryside).
I06 5 /27.5°W La Santa Misa (The Holy Mass): Religioso (Religion).

1115 GMT

B01 1 /65.0°W SPORTS-Grande Premio da Franca de Formula 1 (Grand Premium of France, Formula 1): Auto Races.

1150 GMT

B01 5 /65.0°W O Melhor Negocio (The Better Business): Noticias sobre agro-industrias (Agro-industrial news).

1200 GMT

B01 5 /65.0°W Emporio Brasileiro (Brazilian Emporiom)
I06 1 /27.5°W Senal de Prueba (Test Signal)
I06 5 /27.5°W SPORTS-Motociclismo (Motor Racing)
I10 15 /53.0°W Odd Couple

1210 GMT

I06 1 /27.5°W Musica: Identificacion Cadena Uno (Music: Identification Channel One)

1225 GMT

I06 1 /27.5°W Gimnasia Ritmica (Rhythmic Gymnastics): Produccion canadiense de ejercicios aerobicos (Canadian production of aerobic exercises).

1227 GMT

I06 1 /27.5°W Presentacion de Planta: Himno Nacional (Presentation of the Flag and National Hymn)

1230 GMT

I07 24 /31.0°W La Fe del Hombre (Man's Faith)
I10 22 /53.0°W La Santa Misa (The Holy Mass): Religioso (Religion).
S04 -1 /14.0°W Klub Putshestvennikov (Traveler's Club)

1255 GMT

I06 1 /27.5°W Informativo Juvenil: Educational program for children.

1300 GMT

B01 5 /65.0°W Show de Tourismo (Tourism Show)
I01 24 /1.0°W AFRTS Sign On: Schedules, advisories and color bars.
I06 5 /27.5°W Formula Uno (Formula One)
I07 24 /31.0°W Buen Dia, Maria (Good Day, Maria)
I10 1 /53.0°W En Familia (In the Family): Concursos y diversion familiar (Contests and family entertainment).
I10 14 /53.0°W Naranja Dulce (Sweet Orange): Concurso infantil (Children's contest).
I10 5 /53.0°W Matinee Infantil (Children's Matinee)

1310 GMT

B01 1 /65.0°W Globo Informatica: News.

1325 GMT

I06 1 /27.5°W Animalandia (Animal Land): Programa infantil (Children's programming).

1330 GMT

I01 24 /1.0°W CNN Headline News
I06 3 /27.5°W La Santa Misa (The Holy Mass): Religioso.
I10 22 /53.0°W Clasicos de la Juventud (Youth's Classics)

1345 GMT

B01 1 /65.0°W Batman

1350 GMT

B01 5 /65.0°W SPORTS-Show do Esporte (Sport Show)

1400 GMT

B01 5 /65.0°W SPORTS-Futbol (Football)
F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W CBS Sunday Morning
I07 24 /31.0°W Los Invasores (The Invaders): Serie (Series).
I10 15 /53.0°W Tom and Jerry: Cartoons.
I10 22 /53.0°W Viva El Deporte (Hurray for Sports)
S04 -1 /14.0°W Meahdunarodhaya Panorama (International Panorama)

1410 GMT

B01 1 /65.0°W Festival de Desenhos (Cartoon Festival)

THE AMERICAS

All times are Greenwich Meridian time

1415 GMT

I06 3 /27.5°W Campeonato Infantil de Futbol (Children's Championship Soccer)

1425 GMT

I06 1 /27.5°W Caravana (Caravan): Aventuras en el Oeste americano (Adventures in the American West).

1430 GMT

I06 5 /27.5°W SPORTS-Deportes (Sports)

1500 GMT

I06 5 /27.5°W SPORTS-Basket Liga Especial (Special League Basketball)
I07 24 /31.0°W SPORTS-Deportes (Sports)
I10 14 /53.0°W Festival Internacional Cervantino (International Cervantino Festival)
I10 15 /53.0°W Sesame Street: Children's programming.
I10 22 /53.0°W Dibujos Animados (Cartoons)
I10 5 /53.0°W Para Bajitos: Children's programming.

1510 GMT

I10 22 /53.0°W Lo Mejor de Mazapan (The Best of Mazapan): Programa infantil (Children's programming).

1520 GMT

B01 1 /65.0°W Benji

1530 GMT

I01 24 /1.0°W ABC This Week With David Brinkley: U.S. current affairs program with interviews with government officials.
I10 1 /53.0°W Idolos del Futuro (Idols of the Future)
I10 5 /53.0°W Pancho Lopez: Teatro (Theater).

1545 GMT

B01 1 /65.0°W Disneylandia

1550 GMT

I10 22 /53.0°W Dibujos Animados (Cartoons)

1555 GMT

I06 1 /27.5°W Domingos Latinoamericanos (Latin American Sundays)

1600 GMT

B01 5 /65.0°W SPORTS-Show do Esporte (Sport Show)
I10 1 /53.0°W Hoy Mismo (Today In Itself): Noticias y variedades (News and variety).
I10 14 /53.0°W Los Medicos (The Doctors)
I10 22 /53.0°W Cachureos: Programa infantil (Children's programming).
I10 5 /53.0°W Principia la Aventura Interminable: Investigacion cientifica (Scientific investigation).

1615 GMT

I06 1 /27.5°W Chips

1630 GMT

I01 24 /1.0°W CNN Headline News
I07 24 /31.0°W MOVIE-Cine del Domingo (Sunday Movie)
I10 14 /53.0°W Aqui y Ahora (Here and Now)

1645 GMT

B01 1 /65.0°W Video Show

1700 GMT

I01 24 /1.0°W SPORTS-Major Sporting Event
I06 5 /27.5°W SPORTS-Monitor Hipico (Horse-Racing Monitor)
I10 14 /53.0°W Viva la Revolucion (Long Live the Revolution)
I10 15 /53.0°W SPORTS-Sports Sunday
I10 22 /53.0°W Magnetoscopio Musical
I10 5 /53.0°W Respuestas (Replies)
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1715 GMT

I10 14 /53.0°W Panorama Economico (Economic Panorama): Comentarios (Commentary).

1730 GMT

I10 22 /53.0°W Dibujos Animados (Cartoons)

1735 GMT

S04 -1 /14.0°W Futbol'Noe Obozrenie (Soccer Review)

1745 GMT

B01 1 /65.0°W Casal 20 (Couple 20)
I10 1 /53.0°W SPORTS-Futbol (Soccer)
I10 14 /53.0°W SPORTS-Formula Uno (Formula One)

1800 GMT

B01 5 /65.0°W SPORTS-Campeonato Brasileiro de Stock Cars (Brazilian Championship Stock Car Racing)
I06 1 /27.5°W El Chavo del Ocho (The Buddy of the Eight): Comedia mexicana (Mexican comedy).
I06 3 /27.5°W Jimmy Swaggart: Programa Evangelico (Evangelico program).
I10 5 /53.0°W SPORTS-Beisbol (Baseball)

1815 GMT

B01 5 /65.0°W SPORTS-Ciclismo (Cycling)

1830 GMT

I06 1 /27.5°W Siga la Pista (Follow the Track): Concurso (Contest).

1845 GMT

B01 5 /65.0°W SPORTS-Campeonato Brasileiro de Formula Ford (Brazilian Championship Racing)

1850 GMT

B01 1 /65.0°W Duro Na Queda (Hard Fall)

1900 GMT

B01 5 /65.0°W SPORTS-Volei Feminino (Women's Volleyball)
I06 3 /27.5°W Voley y Canciones

1930 GMT

I06 1 /27.5°W El Mundo del Espectaculo (The World of Spectacle): Avances de peliculas de estreno, notas dobre futblo, hipica, toros, y videos musicales (Variety).

1955 GMT

B01 1 /65.0°W Tempo Quente (Hot Weather)

2000 GMT

I01 24 /1.0°W SPORTS-Major Sporting Event
I06 1 /27.5°W Senoras y Senores (Mr. & Mrs.'s): Magazin dominical (Sunday magazine).
I10 1 /53.0°W SPORTS-Round Cero (Round Zero): Boxeo (Boxing).
I10 14 /53.0°W El Mundo Marino de Ramon Bravo (Ramon Bravo's Marine World)

2015 GMT

I10 1 /53.0°W Para Gente Grande (For Big People): Periodismo (Journalism).

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I06 1 /27.5°W SPORTS-Futbol (Soccer)
I10 14 /53.0°W Cambio (Change)
I10 22 /53.0°W La Pandilla Computarizada (The Computerized Band)

2055 GMT

B01 1 /65.0°W Aguia de Fogo (Eagle of Fire)

2100 GMT

I06 3 /27.5°W Cuentos de Scherezadah (Tales of Scherezadah)
I07 24 /31.0°W La Pelicula Sorpresa (The Surprise Movie)
I10 14 /53.0°W Pelicula (Movie)
I10 5 /53.0°W Documental (Documentary)

2130 GMT

I10 22 /53.0°W Jappening Con Ja (Happening With Ja)

2155 GMT

B01 1 /65.0°W Os Trapalhoes Melhores Momentos (The Trapalhoes Better Moments)

2200 GMT

I06 3 /27.5°W Telematch: Game show.
I06 5 /27.5°W El Super Tren (The Super Train)
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.
I10 15 /53.0°W Wonder Woman
I10 5 /53.0°W Corridos Mexicanos (Worldly-wise Mexicans)

2230 GMT

I10 1 /53.0°W Accion (Action): Resumen de eventos sobresalientes de la semana (Summary of outstanding events of the week).
I10 5 /53.0°W Historia del Cine Mexicano (History of Mexican Cinema)

2300 GMT

B01 1 /65.0°W Fantastico, O Show Da Vida (Fantastic, The Show of Life)
B01 5 /65.0°W SPORTS-Bola Na Mesa (Table Ball)
I01 24 /1.0°W CNN Headline News
I06 1 /27.5°W Los Hart Investigadores (Hart to Hart): Series de aventura (Adventure series).
I06 3 /27.5°W La Vermouth del 7, Exitos del Amor (The Results of Love)
I06 5 /27.5°W Funcion Estelar (Star Function)
I07 24 /31.0°W Encuentros (Encounters)
I10 15 /53.0°W Star Trek
I10 5 /53.0°W Sobrevivencia (Survival): Problemas ecologicos nacionales (National ecological problems).

2330 GMT

B01 5 /65.0°W SPORTS-Bola Na Mesa (Table Ball)
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).
I10 5 /53.0°W En la Ciencia y en las Artes (In Science and in the Arts)

MONDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I06 1 /27.5°W Especial (Special)
I07 24 /31.0°W El Prisma de la Vida (The Prism of Life)
I10 14 /53.0°W SPORTS-Deportv-El Ancho Mundo del Deporte (The Wide World of Sports): Resultadas del futbol, beisbol, y importantes eventos (Results from soccer, baseball, and important events).
I10 19 /53.0°W M.A.S.H.: Comedy.
I10 5 /53.0°W Fiesta Charra: Tradicion de nuestro Mexico (Tradition of our Mexico).

0030 GMT

I06 3 /27.5°W Teledíario (Teledaily): Noticias (News).
I10 1 /53.0°W Siempre en Domingo (Always on Sunday): Variedades, 4 1
I10 15 /53.0°W Hogan's Heroes
I10 22 /53.0°W Best Seller: Pelicula (Movie).

0100 GMT

B01 1 /65.0°W Os Gols Do Fantastico (The Fantastic Gols)
B01 5 /65.0°W Apito Final (Final Whistle): Noticias do Esporte (Sports news).
I01 24 /1.0°W CNN Headline News
I06 1 /27.5°W Noticiero Promec (Promec News)
I06 3 /27.5°W Peru: Tradicion y Realidad (Peru: Tradition and Reality)
I07 24 /31.0°W Cuentos Para Ver (Tales to See)
I10 15 /53.0°W News
I10 5 /53.0°W Suena la Rumba: Musica (Music).

0120 GMT

B01 1 /65.0°W R.J.TV: Noticias (News).

0125 GMT

B01 1 /65.0°W Melhores Momentos (Better Moments)

0130 GMT

B01 5 /65.0°W Sete Minutos (Seven Minutes): Informativo economico (Economic news).
I06 1 /27.5°W Lanzamiento Censo (Census Launching)
I06 5 /27.5°W En Este Pais (In this Country)
I10 15 /53.0°W That's Incredible
I10 5 /53.0°W Cine Mexicano (Mexican Movie)

0135 GMT

B01 5 /65.0°W Critica e Autocritica (Criticism and Review): Jornalistico de entrevistas e debates (Interviews and debates).

0140 GMT

I06 1 /27.5°W Vientos de Guerra (Winds of War)

0145 GMT

B01 1 /65.0°W Cineclube (Movie Club)

0155 GMT

I10 14 /53.0°W Sorteo Melate (Results of the Lottery)

0200 GMT

I06 3 /27.5°W Teatro Universal (Universal Theater): Pelicula (Movie).
I06 5 /27.5°W Los Misterios del Orson Welles (The Mysteries of Orson Welles)
I07 24 /31.0°W Cine Club (Movie Club)
I10 14 /53.0°W Angelica Maria En... (Angelica Maria In...)
I10 15 /53.0°W 60 Minutes: News.

0230 GMT

I06 5 /27.5°W Valores Humanos (Human Values)
I10 22 /53.0°W SPORTS-Zoom Deportivo (Zoom Sports)

0240 GMT

I06 1 /27.5°W El Precio del Deber (Hill Street Blues): Serie (Series).

0300 GMT

I01 24 /1.0°W SPORTS-CNN Sports Tonite
I06 5 /27.5°W Cine de Suspenso (Suspense Theater)
I10 14 /53.0°W Siete Dias (Seven Days): Noticias (News).
I10 15 /53.0°W Murder She Wrote

0330 GMT

B01 5 /65.0°W Cinema Extra (Extra Movie)
I01 24 /1.0°W AFRTS Sign Off or CNN Headline News
I10 5 /53.0°W Festival de Bandas de Oaxaca (Festival of Oaxacan Bands)

0340 GMT

I06 1 /27.5°W Vecinos y Amigos (Friends and Neighbors)

0345 GMT

B01 1 /65.0°W Domingo Maior (Major Sunday)

0400 GMT

I06 3 /27.5°W Hoy El Mundo (Today the World)
I10 15 /53.0°W Crazy Like a Fox
I10 5 /53.0°W Dia a Dia: Noticiario (News).
S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0430 GMT

I06 3 /27.5°W Telediario (Teledaily): Noticias (News).
I10 14 /53.0°W Cine Club (Movie Club)
I10 22 /53.0°W Cierre (Close)

0435 GMT

S04 -1 /14.0°W Futbol'Noe Obozrenie (Soccer Review)

0440 GMT

I06 1 /27.5°W Cierre (Close)

0500 GMT

I06 5 /27.5°W Despedida (Sign Off)
I10 1 /53.0°W 60 Minutos (60 Minutes): Reportaje-puede ser repuesto por eventos deportivos (Journalism-may be prempted by sports events).
I10 15 /53.0°W Trapper John M.D.
I10 5 /53.0°W El Ingenio del Mexicano (The Genius of the Mexican)

0505 GMT

S04 -1 /14.0°W Fil'm (Film)

0530 GMT

I10 5 /53.0°W R.T.C.

0600 GMT

I10 1 /53.0°W Para Gente Grande (For Big People): Periodismo (Journalism).

0615 GMT

I10 14 /53.0°W Resquestas (Replies)

0940 GMT

B01 1 /65.0°W Telecurso 1 Grau (Telecourse, 1st Level)

0945 GMT

B01 5 /65.0°W Programa Jimmy Swaggart (Jimmy Swaggart): Religioso (Religious).

0950 GMT

B01 1 /65.0°W Telecurso 2 Grau (Telecourse, 2nd Level)

1000 GMT

B01 1 /65.0°W Bom Dia, Brasil (Good Morning, Brazil): Economico (Economics).

1015 GMT

B01 5 /65.0°W Qualificacao Profissional (Professional Qualifications): Educativo (Educational).

1030 GMT

B01 1 /65.0°W Bom Dia, Brasil (Good Morning, Brazil): Economico (Economics).

B01 5 /65.0°W Show de Desenhos (Cartoons)
I06 5 /27.5°W Hola, Que Tal! (Hello, How's It Going!)

1050 GMT

S04 -1 /14.0°W Fil'm (Film)

1100 GMT

B01 1 /65.0°W TV Mulher (TV Woman)
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.

1130 GMT

B01 5 /65.0°W Ao Despertar da Fe (To Awaken Faith): Religioso (Religious).
I05 24 /24.5°W CBS and NBC News Feeds from London

1200 GMT

B01 5 /65.0°W Ela (She): Programa feminino (Women's program).
I10 15 /53.0°W News
I10 5 /53.0°W El Hombre y El Campo (Man and the Country): Informacion agropecuaria (Farming information).

1230 GMT

B01 1 /65.0°W Balao Magico (The Magic Balloon): Desenhos (Cartoons).
I07 24 /31.0°W Telescuela Tecnica (Technical TV School)
I10 5 /53.0°W Capacitacion (Preparation)

1300 GMT

I01 24 /1.0°W Sign On
I07 24 /31.0°W Buen Dia Maria (Good Day Maria): Clases de gimasia (Gymnastics classes).
I10 1 /53.0°W Hoy Mismo (Today In Itself): Noticias y variedades (News and variety).
I10 14 /53.0°W Desde Temprano (Since Early): Revista noticiera, cultural y deportiva (News, cultural, and sports reviews).
I10 5 /53.0°W Secundaria Intensiva (Intensive High School)
S04 6 /14.0°W UPITN News From London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W ABC World News AM
I10 15 /53.0°W Sun Up San Diego

1400 GMT

B01 5 /65.0°W Ele (He): Variedades (Variety).
F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W NBC Today Show
I05 24 /24.5°W UPITN News London
I06 5 /27.5°W La Abejita Maya (Maya, the Little Bee)
I07 24 /31.0°W Smith y Jones (Smith and Jones): Serie (Series).
I10 22 /53.0°W Los Muppets (The Muppets): Programa infantil (Children's programming).
I10 5 /53.0°W Telesecundaria (Tele-High School)

1420 GMT

B01 5 /65.0°W A Marvilhosa Cozinha de Ofelia (Ofelia's Marvelous Kitchen): Culinaria

1425 GMT

I10 22 /53.0°W La Cocina de Monica (Monica's Kitchen)

1430 GMT

I05 24 /24.5°W Visnews for Middle East and Europe
I06 5 /27.5°W Teatro Internacional (International Theater)
I10 15 /53.0°W The New $25,000 Pyramid
I10 22 /53.0°W Mazapan: Programa infantil (Children's programming).

1445 GMT

I06 1 /27.5°W Telemach (Telematch)
S04 -1 /14.0°W Segodnya V Mire (Today in the World)

1455 GMT

B01 5 /65.0°W Boa Vontade (Good Will): Religioso (Religious).

1500 GMT

B01 5 /65.0°W SPORTS-Esporte Total (All Sports)
I06 5 /27.5°W Familia (Family)
I07 24 /31.0°W Vivir Bien (To Live Well)
I10 22 /53.0°W El Festival de la Una (Festival for One)

1530 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).
B01 5 /65.0°W Amor (Love): Variedades (Variety show).
I07 24 /31.0°W Noticeiro (News).
I10 15 /53.0°W Press Your Luck

1545 GMT

B01 1 /65.0°W SPORTS-TV Globo Esporte (World Sports): Noticias y esporte (News and sports).

1600 GMT

B01 1 /65.0°W Hoje (Today)
I01 24 /1.0°W CNN Headline News
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I06 5 /27.5°W La Noticia: News.
I07 24 /31.0°W Cordialmente (Cordially): Periodistico (Journalism).

1630 GMT

B01 1 /65.0°W NOVELA-Vale a Pena Ver de Novo (It's Worth the Trouble to Look Again)
B01 5 /65.0°W TV Crianca (Children's TV)
I06 1 /27.5°W NOVELA-Dancin' Days
I06 3 /27.5°W Novela
I06 5 /27.5°W Almorzando con Orlando (Lunching With Orlando)

1700 GMT

I01 24 /1.0°W CNN Take Two: Hour 2.
I05 24 /24.5°W Visnews London: Early evening news feeds for SABC Johannesburg.
I06 1 /27.5°W Teatro (Theater)
I07 24 /31.0°W 20 Mujeres (20 Women): Periodistico (Journalism)
I10 1 /53.0°W Vida Diaria (Living Diary)

THE AMERICAS

All times are Greenwich Meridian time

I10 14 /53.0°W La Novela (The Novel)
I10 15 /53.0°W The Price is Right: Game show.
I10 22 /53.0°W Edicion Uno (First Edition): Noticias (News).
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News. Sports. Weather
S04 6 /14.0°W Vremya (Time): The Moscow Evening News. Sports. Weather

1730 GMT

B01 1 /65.0°W Festival de Ferias (Festival of Holidays)
I06 1 /27.5°W Noticias Uno: News
I10 22 /53.0°W NOVELA-Tu Eres Mi Destino (You are My Destiny)

1800 GMT

I01 24 /1.0°W CNN Headline News
I06 1 /27.5°W Telenovela Regional (Regional Telenovel)
I06 5 /27.5°W NOVELA-La Pasion de Isabela (Isabel's Passion)
I10 14 /53.0°W Lupita
I10 15 /53.0°W NOVELA-The Young and Restless
I10 22 /53.0°W Un Minuto en la Moda (One Minute in Fashion)

1805 GMT

I10 22 /53.0°W Amalia Batista: Telesene (Teleseries).

1830 GMT

I01 24 /1.0°W 60 Minutes
I06 1 /27.5°W Matematicas (Mathematics)
I10 1 /53.0°W Club del Hogar (Home Club)
I10 14 /53.0°W Sal y Pimienta (Salt and Pepper)

1850 GMT

I06 1 /27.5°W Avancemos (Let's Advance)

1900 GMT

I06 5 /27.5°W Maria de Los Angeles (Maria of Los Angeles)
I07 24 /31.0°W Telejuegos (Telegames): Infantil (Children's programming).
I10 14 /53.0°W Ninos, Ninos, Ninos (Children, Children, Children)
I10 15 /53.0°W News
I10 22 /53.0°W El Hombre Nuclear (Nuclear Man): Serie de accion (Action series).

1910 GMT

I05 24 /24.5°W OTI: SIN News.
I06 1 /27.5°W Discubro Mi Mundo (I Discover My World)

1930 GMT

B01 1 /65.0°W Sessao Aventura (Adventure Session)
I01 24 /1.0°W Meet the Press
I06 1 /27.5°W Caminito Alegre (Happy Little Road)
I10 14 /53.0°W Artesanos y Orfebres (Artesians and Goldsmiths)

1950 GMT

I06 1 /27.5°W Mi Universo (My Universe)
I08 24 /34.5°W UPITN DSSA News Unilaterals: Including Globo, Canadian CTV, and US network feeds

2000 GMT

I01 24 /1.0°W Face the Nation
I06 3 /27.5°W Barba Papa
I06 5 /27.5°W Angel, La Nina de las Flores (Angel, the Flower Child)
I10 1 /53.0°W 24 Horas de la Tarde (24 Hours in the Afternoon): Noticias (News).
I10 14 /53.0°W Primera Edicion (First Edition): Noticias (News)
I10 15 /53.0°W NOVELA-As the World Turns
I10 22 /53.0°W Tardes de Cine (Afternoon Movie)
I10 5 /53.0°W El Que Sabe Sabe (He Who Knows Knows)

2015 GMT

B01 1 /65.0°W Sitio do Picapau Amarelo (Site of the Yellow Woodpecker)

2020 GMT

I06 1 /27.5°W Descubro Mi Mundo (I Discover My World)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I01 24 /1.0°W CNN Headline News
I06 3 /27.5°W Magnificos Justicietos (Austere Magnificents)
I06 5 /27.5°W La Pequena Casa de la Pradera (Little House on the Prairie)
I10 1 /53.0°W Videoexitos (Video Outcomes)
I10 14 /53.0°W El Bazar (The Bazaar): Programa social (Social program)
I10 15 /53.0°W Capitol
I10 5 /53.0°W Documental (Documentary)

2035 GMT

I06 1 /27.5°W Caminito Alegre (Happy Little Road)

2040 GMT

I05 24 /24.5°W Visnews London

2045 GMT

I10 5 /53.0°W Partidos Politicos (Political Parties)

2055 GMT

B01 1 /65.0°W NOVELA-A Gata Comeu

2100 GMT

B01 5 /65.0°W Jeannie E um Genio (I Dream of Jeannie)
I01 24 /1.0°W CNN Take Two: Hour 1.
I06 3 /27.5°W Esper
I07 24 /31.0°W El Auto Fantastico (The Fantastic Auto): Serie (Series).
I10 14 /53.0°W Ocio y Cultura (Leisure and Culture): Literatura, cine, danza, opera, deportes, entrevistas (literature, movies, dance, opera, sports, interviews).
I10 15 /53.0°W NOVELA-Guiding Light
I10 5 /53.0°W Guia de Cada Dia (Daily Guide)

2130 GMT

B01 5 /65.0°W A Feiticeira: Serie (Series).
I06 3 /27.5°W Mounstruos del Espacio (Monsters of Space)
I06 5 /27.5°W Ocho Son Suficientes (Eight is Enough)
I10 1 /53.0°W MOVIE-Nuestro Cine Presenta...La Risa en Su Casa (Our Movie Presentation...Laughter in Your House)
I10 14 /53.0°W La Guia de Cada Dia (Each Day's Guide)
I10 5 /53.0°W Pequenos Viajeros (Little Travelers)

2140 GMT

I05 24 /24.5°W Visnews

2150 GMT

B01 1 /65.0°W NOVELA-Um Sonho a Mais (Another Dream)

2200 GMT

B01 5 /65.0°W O Gordo E O Magro (Laurel and Hardy): Serie (Series).
I01 24 /1.0°W AFRTS Advisory Block: Schedules, advisories and color bars.
I05 24 /24.5°W CBS International: News unilaterals for South America.
I06 1 /27.5°W Pequenos Gigantes (Little Giants)
I06 3 /27.5°W Teleidiomas (Telelanguage)
I07 24 /31.0°W Gente Como la Gente (People Like People): Telecomedia (Comedy).
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.
I10 14 /53.0°W La Casa de Paco (Paco's House)
I10 15 /53.0°W Hour Magazine
I10 22 /53.0°W Segunda Franja Cultural (Second Cultural Fringe)
I10 5 /53.0°W El Hada Chappie (Chappie the Fairy): Dibujos animados (Cartoons).

2210 GMT

I05 24 /24.5°W NBC News Feeds

2215 GMT

B01 5 /65.0°W Jornal do Rio: Noticias (News).

2230 GMT

B01 5 /65.0°W Jornal Bandeirantes: Noticias nacionais e internacionais (National and international news).
I01 24 /1.0°W ABC World News Tonight
I06 1 /27.5°W Fantasia: Musical.
I06 3 /27.5°W Gente del Manana (Tomorrow's People)
I06 5 /27.5°W Cine Cine (Movie)
I07 24 /31.0°W Noticiero (News).
I10 14 /53.0°W Vamos a Todas Partes (Let's Go Everywhere)
I10 5 /53.0°W Mi Mundo de Cabeza: Cuentos clasicos infantiles (Classic children's tales).

2245 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).

2255 GMT

B01 1 /65.0°W Jornal Nacional (National Journal): Noticias (News).

2300 GMT

B01 5 /65.0°W Guerra, Sombra e Agua Fresca (War, Shade and Fresh Water): Seriado humoristico (Comedy series).
I01 24 /1.0°W NBC Nightly News
I05 24 /24.5°W UPITN for Latin America
I06 1 /27.5°W Porque Usted lo Pregunto (Because You Asked It)
I06 3 /27.5°W Enciclopedia Britannica (Encyclopedia Britannica)
I07 24 /31.0°W Mesa de Noticias (News Desk): Programa humoristico (Comedy program).
I10 1 /53.0°W El Tesoro del Saber (The Treasure of Knowledge)
I10 14 /53.0°W El Tianguis (The Market)
I10 15 /53.0°W M.A.S.H.
I10 22 /53.0°W Marta a Las Ocho (Marta at Eight): Teleserie (Teleseries).
I10 5 /53.0°W Sabias Tu Que... (You Know That...)
S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

2325 GMT

B01 1 /65.0°W Roque Santeiro

2330 GMT

B01 5 /65.0°W Oito E Meia (Eight and a Half): Variedades (Variety show).
I01 24 /1.0°W CBS Evening News
I06 1 /27.5°W Diez Mejores de la Musica (Top Ten Hits)
I06 3 /27.5°W Disco Club: Pop music videos.
I10 1 /53.0°W NOVELA-Abandonada (Abandoned)
I10 14 /53.0°W Musica y Algo Mas (Music and Something More)
I10 15 /53.0°W Cartoon
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).
I10 5 /53.0°W Matices

2355 GMT

I06 5 /27.5°W Mafalda

TUESDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I06 1 /27.5°W Noticiero 24 Horas (24 Hours): Noticias (News).
I06 5 /27.5°W Las Noticias de VTV (News From VTV)
I07 24 /31.0°W Kim de la India (Kim of India): Miniserie (Miniseries).
I10 1 /53.0°W NOVELA-Principessa
I10 15 /53.0°W What's Happening
I10 5 /53.0°W Especial R.T.C. (Special R.T.C.)

0005 GMT

B01 5 /65.0°W Jornal da Copa: Boletim informativo sobre o Mundial do Mexico (Mexican news).

0015 GMT

B01 5 /65.0°W Segunda Sem Lei: Filmes (Western movies).

0020 GMT

B01 1 /65.0°W Viva o Gordo

0025 GMT

I06 1 /27.5°W El Minuto De Dios (One Minute for God)

0030 GMT

I06 1 /27.5°W Hechos y Acciones (Deeds and Actions)
I06 3 /27.5°W Telediario (Telediaily): Noticias (News).
I06 5 /27.5°W Dossier
I10 1 /53.0°W NOVELA-Los Anos Pasan (The Years Pass)
I10 14 /53.0°W NOVELA-Lupita
I10 15 /53.0°W I'm a Big Girl Now: Comedy.
I10 22 /53.0°W Gran Gala Del Ballet (Grand Gala of Ballet)
I10 5 /53.0°W Hacia El Ano 2000 (Towards the Year 2000)

0100 GMT

I01 24 /1.0°W MacNeil, Lehrer Report
I06 1 /27.5°W Chespirito
I06 3 /27.5°W La Baronesa Di Carini (The Baroness Di Carini)
I06 5 /27.5°W Baila Conmigo (Dance With Me)
I07 24 /31.0°W Interpelacion (Questioning): Peridoistico (Journalism).
I10 1 /53.0°W NOVELA-Juana Iris
I10 14 /53.0°W Siete Dias (Seven Days): Noticias (News).
I10 15 /53.0°W NBC News
I10 5 /53.0°W La Hazana de Mexico (Mexico's Feat)

0115 GMT

B01 1 /65.0°W Festival Nacional (National Festival)

0130 GMT

I10 1 /53.0°W Xe Tu Sueno Possible (Xe Tu Possible Dream): Concurso (Contest).
I10 14 /53.0°W Webster: Comedia (Comedy).
I10 15 /53.0°W That's Incredible

0135 GMT

I06 1 /27.5°W Concentrese (Concentration): Programa concurso (Game show).

0200 GMT

I01 24 /1.0°W CNN Headline News
I06 3 /27.5°W Los Rivales de Sherlock Holmes (The Rivals of Sherlock Holmes)
I06 5 /27.5°W NOVELA-Corazon Indomito (Untamed Heart)
I10 1 /53.0°W 24 Horas (24 Hours): Noticias (News).
I10 14 /53.0°W Einstein
I10 15 /53.0°W Bossom Bodies
I10 5 /53.0°W SPORTS-Sobre El Terreno de Juego (On the Gamefield)

0205 GMT

I10 1 /53.0°W Chespirito: Comedia (Comedy).

0215 GMT

B01 5 /65.0°W Jornal da Noite: Noticias (News).

0225 GMT

B01 5 /65.0°W Dinheiro (Money): Economia (Economy).

0230 GMT

B01 5 /65.0°W Acao e Investimento (Stocks and Investments): Jornalistico de entrevistas sobre o mercado financeiro (Journal of interviews on the finance market).
I06 1 /27.5°W Noticiero TV Hoy (Today's TV News)
I07 24 /31.0°W Nos Estamos Viendo (We Are Seeing): Peridoistico (Journalism).
I10 15 /53.0°W San Diego At Large

0245 GMT

I10 22 /53.0°W Edicion Dos (Second Edition): Noticias (News).

0300 GMT

B01 5 /65.0°W Mini-Serie (Mini-Series)
I01 24 /1.0°W SPORTS-CNN Sports
I06 1 /27.5°W Telenovela Nacional (National Telenovel)
I06 3 /27.5°W Cine Como En El Cine (Movie Like At The Movies)
I06 5 /27.5°W La Entrevista de Hoy (Today's Interview)
I07 24 /31.0°W Titulares (Titles): Informativo (Report).
I10 1 /53.0°W La Nueva Carabina de Amborsio (Ambrosio's New Rifle): Comedia musical (Musical comedy).
I10 14 /53.0°W Pelicula (Movie)
I10 15 /53.0°W Scarecrow and Mrs. King

0315 GMT

B01 1 /65.0°W Jornal da Globo (World Journal): Noticias (News).
I06 5 /27.5°W Los Archivos de Andros (The Archives of Andros)
I10 22 /53.0°W Clasicos del Cine (Movie Classics)

0330 GMT

I01 24 /1.0°W NBC Tonight Show starring Johnny Carson
I06 1 /27.5°W Nostalgia
I10 1 /53.0°W NOVELA-Tu O Nadie (You or Nobody)

0345 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).

0350 GMT

B01 1 /65.0°W Festival de Sucessos (Hit Festival)

0355 GMT

I10 1 /53.0°W Advance de 24 Horas (Advance of 24 Hours)

0400 GMT

I06 1 /27.5°W Kung Fu
I10 1 /53.0°W NOVELA-Angelica
I10 15 /53.0°W Kate and Allie
I10 5 /53.0°W Dia a Dia: Noticiario (News).
S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0415 GMT

I06 5 /27.5°W Depsedida (Close)

0430 GMT

I01 24 /1.0°W CNN Headline News
I06 3 /27.5°W Telediario (Telediaily): Noticias (News).
I10 1 /53.0°W 24 Horas (24 Hours): Noticiario (News).
I10 15 /53.0°W Newhart

0445 GMT

I10 14 /53.0°W Historia de un Cantar (History of a Singer)

0500 GMT

I01 24 /1.0°W ABC Nightline
I06 1 /27.5°W Cierre y Himno Nacional (Close and National Hymn)
I10 15 /53.0°W Cagney and Lacy
I10 22 /53.0°W Cierre (Close)
I10 5 /53.0°W Con "N" de Nacho: Musica y comedia (Music and comedy).
I10 5 /53.0°W La Entrevista de Hoy (Today's Interview)

0515 GMT

I10 5 /53.0°W Cine Mexicano (Mexican Movie)

0530 GMT

I01 24 /1.0°W CNN Headline News
I10 1 /53.0°W Especial (Special)

0545 GMT

I10 14 /53.0°W Un Dia un Escritor (One Day a Writer)

0600 GMT

I01 24 /1.0°W AFRTS Sign Off or CNN Headline News
I10 1 /53.0°W Cine del Dos (Movie for Two)

0615 GMT

I10 14 /53.0°W Cascaritas Musicales

0645 GMT

I10 14 /53.0°W Ultima Edicion (Last Edition): Noticias (News).

0940 GMT

B01 1 /65.0°W Telecurso 1 Grau (Telecourse, 1st Level)

0945 GMT

B01 5 /65.0°W Programa Jimmy Swaggart: Religioso (Religious).

0950 GMT

B01 1 /65.0°W Telecurso 2 Grau (Telecourse, 2nd Level)

1000 GMT

B01 1 /65.0°W Bom Dia, Brasil (Good Morning, Brazil): Economico (Economics).

1015 GMT

B01 5 /65.0°W Qualificacao Profissional (Professional Qualifications): Educativo (Educational).

1030 GMT

B01 1 /65.0°W Bom Dia, Brasil (Good Morning, Brazil): Economico (Economics).
B01 5 /65.0°W Show de Desenhos (Cartoons).
I06 5 /27.5°W Hola, Que Tal! (Hello, How's It Going!)

1050 GMT

S04 -1 /14.0°W Dokumntal'nye Fil'my (Documentary Film)

1100 GMT

B01 1 /65.0°W TV Mulher (TV Woman)
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.

1130 GMT

B01 5 /65.0°W Ao Despertar da Fe (To Awaken Faith): Religioso (Religious).
I05 24 /24.5°W CBS and NBC News Feeds from London

1200 GMT

B01 5 /65.0°W Ella (She): Programa feminino (Women's program).
I10 15 /53.0°W News
I10 5 /53.0°W El Hombre y El Campo (Man and the Country): Informacion agropecuaria (Farming information).

1230 GMT

B01 1 /65.0°W Balao Magico (The Magic Balloon): Desenhos (Cartoons).
I07 24 /31.0°W Telescuela Tecnica (Technical TV School)
I10 5 /53.0°W Capacitacion (Preparation)

1300 GMT

I01 24 /1.0°W Sign On
I07 24 /31.0°W Buen Dia Maria (Good Day Maria): Clases de gimasia (Gymnastics classes)
I10 1 /53.0°W Hoy Mismo (Today In Itself): Noticias y variedades (News and variety).
I10 14 /53.0°W Desde Temprano (Since Early): Revista noticiera, cultural y deportiva (News, cultural, and sports reviews).
I10 5 /53.0°W Secundaria Intensiva (Intensive High School)
S04 6 /14.0°W UPITN News from London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W ABC World News AM
I10 15 /53.0°W Sun Up San Diego

1400 GMT

B01 5 /65.0°W Elle (He): Variedades (Variety).
F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W NBC Today Show
I05 24 /24.5°W UPITN News London
I06 5 /27.5°W La Abejita Maya (Maya, the Little Bee)
I07 24 /31.0°W Smith y Jones (Smith and Jones): Serie (Series).
I10 22 /53.0°W Los Muppets (The Muppets): Programa infantil (Children's programming)
I10 5 /53.0°W Telesecundaria (Tele-High School)

1420 GMT

B01 5 /65.0°W A Maravilhosa Cozinha de Ofelia (Ofelia's Marvelous Kitchen): Culinaria (Culinary arts).

THE AMERICAS

All times are Greenwich Meridian time

1430 GMT

I05 24 /24.5°W Visnews for Middle East and Europe
I06 5 /27.5°W Teatro Internacional (International Theater)
I10 15 /53.0°W The New $25,000 Pyramid
I10 22 /53.0°W Festival de la Una (Festival for One)

1445 GMT

I06 1 /27.5°W Prisma (Prism)
S04 -1 /14.0°W Segnodnya V Mire (Today in the World): World News.

1455 GMT

B01 5 /65.0°W Boa Vontade (Good Will): Religioso (Religious).

1500 GMT

B01 5 /65.0°W SPORTS-Esporte Total (Total Sports)
I06 5 /27.5°W Familia (Family)
I07 24 /31.0°W Vivir Bien (To Live Well)

1530 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).
B01 5 /65.0°W Amor (Love): Variedades (Variety).
I07 24 /31.0°W Noticiero (News).
I10 15 /53.0°W Press Your Luck

1545 GMT

B01 1 /65.0°W SPORTS-TV Globo Esporte (World Sports): Noticias y esporte (News and sports).

1600 GMT

B01 5 /65.0°W TV Crianca (Childrens' TV): Children's programming.
I01 24 /1.0°W CNN Headline News
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I06 5 /27.5°W La Noticia: News.
I07 24 /31.0°W Cordialmente (Cordially): Periodistico (Journalism).

1625 GMT

B01 1 /65.0°W NOVELA-Vale a Pena Ver de Novo (It's Worth the Trouble to Look Again)

1630 GMT

I01 24 /1.0°W SPORTS-ESPN Sportscenter
I06 1 /27.5°W NOVELA-Dancin'Days)
I06 3 /27.5°W Novela
I06 5 /27.5°W Almorzando con Orlando (Lunching With Orlando)

1700 GMT

I01 24 /1.0°W CNN Take Two: Hour 2.
I05 24 /24.5°W Visnews London: Early evening news feeds for SABC Johannesburg.
I06 1 /27.5°W Noticias Uno (News One)
I07 24 /31.0°W 20 Mujeres (20 Women): Periodistico (Journalism).
I10 1 /53.0°W Vida Diaria (Living Diary)
I10 14 /53.0°W La Novela (The Novel)
I10 15 /53.0°W The Price is Right: Game show.
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1730 GMT

B01 1 /65.0°W Festival de Ferias (Festival of Holidays)
I10 22 /53.0°W Edicion Uno (First Edition): Noticias (News).

1745 GMT

I10 22 /53.0°W Chispita: Teleserie (Teleseries).

1800 GMT

I01 24 /1.0°W CNN Headline News
I06 1 /27.5°W La Cautiva (The Captive)
I06 5 /27.5°W NOVELA-La Pasion de Isabela (Isabel's Passion)
I10 14 /53.0°W Lupita
I10 15 /53.0°W NOVELA-The Young and Restless

1815 GMT

I10 22 /53.0°W Un Minuto en la Moda (One Minute in Fashion)

1820 GMT

I10 22 /53.0°W La Feira (The Hustler)

1830 GMT

I06 1 /27.5°W Programacion Recreativa de Vacaciones (Vacation Recreational Programming)
I10 1 /53.0°W Club del Hogar (The Home Club): Variedades y humorismo (Varieties and humor).
I10 14 /53.0°W Sal y Pimienta (Salt and Pepper)

1855 GMT

I10 22 /53.0°W Los Poderes de Matthew Star (The Powers of Matthew Star): Serie de aventuras y ficcion (Adventure series).

1900 GMT

I01 24 /1.0°W CNN Continues
I06 5 /27.5°W Maria de Los Angeles (Maria of Los Angeles)
I07 24 /31.0°W Telejuegos (Telegames): Infantil (Children's programming).
I10 14 /53.0°W A Brazo Partido (With Open Arms)
I10 15 /53.0°W News

1910 GMT

I05 24 /24.5°W OTI: SIN News.

1930 GMT

B01 1 /65.0°W Sessao Aventura (Adventure Session)
I10 14 /53.0°W Las Artes (The Arts)

1950 GMT

I08 24 /34.5°W UPITN DSSA News Unilaterals: Including Globo, Canadian CTV, and US network feeds.

2000 GMT

I06 3 /27.5°W Los Globetrotters (The Globetrotters)
I06 5 /27.5°W El Super Libro (The Super Book)
I10 1 /53.0°W 24 Horas de la Tarde (24 Hours in the Afternoon): Noticas (News).
I10 14 /53.0°W Primera Edicion (First Edition): Noticias (News).
I10 15 /53.0°W NOVELA-As the World Turns
I10 22 /53.0°W Dibujos Animados (Cartoons)
I10 5 /53.0°W El Que Sabe Sabe (He Who Knows Knows)

2015 GMT

B01 1 /65.0°W Sitio do Picapau Amarelo (Site of the Yellow Woodpecker)

2020 GMT

I10 22 /53.0°W MOVIE-Tardes de Cine (The Afternoon Movie)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I01 24 /1.0°W CNN Headline News
I06 3 /27.5°W Magnificos Justicieros (Austere Magnificents)
I06 5 /27.5°W La Pequena Casa de la Pradera (Little House on the Prairie)
I10 1 /53.0°W Video Exitos (Video Outcomes)
I10 14 /53.0°W El Bazar (The Bazaar): Programa social (Social program).
I10 15 /53.0°W Capitol
I10 5 /53.0°W Curso Simplificado (Simplified Course)

2040 GMT

I05 24 /24.5°W Visnews London

2055 GMT

B01 1 /65.0°W NOVELA-A Gata Comeu

2100 GMT

B01 5 /65.0°W Jeannie E Um Genio (I Dream of Jeannie): Seriado (Series).
I01 24 /1.0°W CNN Take Two: Hour 1.
I06 3 /27.5°W Muggsy
I07 24 /31.0°W Los Duke de Hazzard (The Dukes of Hazzard): Serie (Series).
I10 14 /53.0°W Ocio y Cultura (Leisure and Culture): Comentarios (Commentary).
I10 15 /53.0°W NOVELA-Guiding Light
I10 5 /53.0°W Guia de Cada Dia (Daily Guide)

2115 GMT

I10 1 /53.0°W Partidos Politicos (Political Parties)

2130 GMT

B01 5 /65.0°W A Feiticeira: Serie (Series).
I06 3 /27.5°W Mounstruos del Espacio (Monsters of Space)
I06 5 /27.5°W Ocho Son Suficientes (Eight is Enough)
I10 1 /53.0°W Nuestro Cine Presenta...Tardes Rancheras (Our Movie Presentation...Ranchers Afternoon)
I10 14 /53.0°W La Guia de Cada Dia (Each Day's Guide)
I10 5 /53.0°W Pequenos Viajeros (Little Travelers)

2140 GMT

I05 24 /24.5°W Visnews

2150 GMT

B01 1 /65.0°W NOVELA-Um Sonho a Mais (Another Dream)

2200 GMT

B01 5 /65.0°W O Gordo y O Magro (Laurel and Hardy): Serie (Series).
I01 24 /1.0°W AFRTS Advisory Block: Schedules, advisories and color bars.
I05 24 /24.5°W CBS International: News unilaterals to South America.
I06 1 /27.5°W Pequenos Gigantes (Little Giants)
I06 3 /27.5°W Teleidiomas (Telelanguage)
I07 24 /31.0°W Gente Como la Gente (People Like People): Telecomidia (Comedy).
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.
I10 14 /53.0°W Circulo de la Imaginacion (Circle of the Imagination)
I10 15 /53.0°W Hour Magazine
I10 5 /53.0°W Viva Yo: Educativo, infantil (Educational children's programming).

2210 GMT

I05 24 /24.5°W NBC News Feeds

2215 GMT

B01 5 /65.0°W Jornal do Rio: Noticias (News).

2230 GMT

B01 5 /65.0°W Jornal Bandeirantes: Noticias nacionais e internacionais (National and international news).
I01 24 /1.0°W ABC World News Tonight
I06 1 /27.5°W Discoteca (Discoteque)
I06 3 /27.5°W Gente del Manana (Tomorrow's People)
I06 5 /27.5°W Cine Cine (Movie)
I07 24 /31.0°W Noticiero (News).
I10 14 /53.0°W Vamos a Todos Partes (Let's Go Everywhere)
I10 5 /53.0°W Mi Mundo de Cabeza: Cuentos clasicos infantiles (Classic children's tales)

2245 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).

2255 GMT

B01 1 /65.0°W Jornal Nacional (National Journal): Noticias (News).

2300 GMT

B01 5 /65.0°W M.A.S.H.: Comedia (Comedy).
I01 24 /1.0°W NBC Nightly News
I05 24 /24.5°W UPITN for Latin America
I06 1 /27.5°W La Mujer Maravilla (That Marvelous Woman)
I06 3 /27.5°W Conociendo el Cuetpo Humano (Knowing the Human Body)
I07 24 /31.0°W Mesa de Noticias (News Desk): Programa humoristico (Comedy program).

I10 1 /53.0°W El Tesoro del Saber (The Treasure of Knowledge)
I10 14 /53.0°W Cifra
I10 15 /53.0°W M.A.S.H.: Comedy.
I10 22 /53.0°W Chispita (Little Spark)
I10 5 /53.0°W Chispa (Spark): Educativo, infantil (Educational children's programming).
S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

2325 GMT

B01 1 /65.0°W NOVELA-Roque Santeiro

2330 GMT

B01 5 /65.0°W Oito E Meia (Eight and a Half): Variedades (Variety).
I01 24 /1.0°W CBS Evening News
I06 3 /27.5°W Disco Club: Pop music videos.
I10 1 /53.0°W NOVELA-Abandonada (Abandoned)
I10 14 /53.0°W Musica y Algo Mas (Music and Something More)
I10 15 /53.0°W Cartoon
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).
I10 5 /53.0°W La Obra del Hombre (Man's Masterpieces)

2355 GMT

I06 5 /27.5°W Mafalda

WEDNESDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I06 1 /27.5°W Noticiero 24 Horas: Noticias (News).
I06 3 /27.5°W Corazon Serano (Serene Heart)
I06 5 /27.5°W Las Noticias de VTV (News From VTV)
I07 24 /31.0°W Colorin, Colorado (Coloring, Colored): Telenovela para la juventud (Children's program).
I10 1 /53.0°W NOVELA-Principessa
I10 15 /53.0°W What's Happening
I10 5 /53.0°W Estados de Mexico (States of Mexico)

0005 GMT

B01 5 /65.0°W Jornal da Copa: Boletim informativo sobre o Mundial do Mexico (Mexican news).

0015 GMT

B01 5 /65.0°W Emporio Brasileiro (Brazilian Emporium)

0020 GMT

B01 1 /65.0°W Terca Nobre (Magnum)

0025 GMT

I06 1 /27.5°W El Minuto de Dios (One Minute for God)
I10 22 /53.0°W TV Tiempo (TV Time)

0030 GMT

I06 1 /27.5°W Dialogando
I06 5 /27.5°W Dossier
I10 1 /53.0°W NOVELA-Los Anos Pasan (The Years Pass)
I10 14 /53.0°W NOVELA-Lupita
I10 15 /53.0°W I'm a Big Girl Now: Comedy.
I10 22 /53.0°W El Auto Fantastico (The Fantastic Auto)
I10 5 /53.0°W Estado de Morelos (State of Morelos)

0100 GMT

I01 24 /1.0°W CBS Evening News: West Coast Feed
I06 1 /27.5°W Las Investigadoras (The Investigators)
I06 3 /27.5°W Rhonda Estelar
I06 5 /27.5°W Baila Conmigo (Dance With Me)
I07 24 /31.0°W Noche de Estreno (Debut Night)
I10 1 /53.0°W NOVELA-Juana Iris
I10 14 /53.0°W Siete Dias (Seven Days): Noticias (News).
I10 15 /53.0°W NBC News
I10 5 /53.0°W La Hazana de Mexico (Mexico's Feat)

0115 GMT

B01 1 /65.0°W Festival Nacional (National Festival)
B01 5 /65.0°W Missao: Impossivel (Mission: Impossible)

0130 GMT

I01 24 /1.0°W MacNeil, Lehrer Report
I06 1 /27.5°W Espectaculares Jes (Jes's Spectaculars): Animacion (Animated).
I10 1 /53.0°W Xe Tu, Canta Contest (Xe Tu, The Singing Contest): Concurso (Contest).
I10 14 /53.0°W Estado de Durango (State of Durango)
I10 15 /53.0°W That's Incredible
I10 22 /53.0°W Dallas

0155 GMT

I10 1 /53.0°W 24 Horas Informa: Noticias (News).

0200 GMT

I06 3 /27.5°W Novela
I06 5 /27.5°W NOVELA-Corazon Indomito (Untamed Heart)
I10 1 /53.0°W La Hora Del Loco (Crazy Hour)
I10 14 /53.0°W Un Hombre Llamado Intrepido (A Man Named Intrepid)
I10 15 /53.0°W Entertainment Tonight
I10 5 /53.0°W Panorama de la Cancion Yucateca (Panorama of the Yucatecan Song)

0215 GMT

B01 5 /65.0°W Jornal da Noite (Night Journal): Noticias (News).

0225 GMT

B01 5 /65.0°W Dinheiro (Money): Economia (Economy).

0230 GMT

B01 5 /65.0°W Brasil Exportacao (Exportation Brazil): Jornalistico de entrevistas e informacoes (Interviews).
I01 24 /1.0°W CNN Continues
I06 1 /27.5°W Noticiero TV Hoy (Today's TV News)
I10 15 /53.0°W San Diego At Large
I10 22 /53.0°W Edicion Dos (Second Edition): Noticias (News).
I10 5 /53.0°W 7 Veces 7 (7 Times 7): Concurso (Contest).

0250 GMT

I10 22 /53.0°W Cine de Trasnoche (Movie)

0300 GMT

I06 1 /27.5°W NOVELA-Los Impostores (The Imposters)
I06 3 /27.5°W Novela
I06 5 /27.5°W La Entrevista de Hoy (Today's Interview)
I07 24 /31.0°W Titulares (Titles): Informativo (Report).
I10 1 /53.0°W El Estudio de Lola Beltran (The Studio of Lola Beltran): Canciones rancheras (Country music).
I10 14 /53.0°W Ligia
I10 15 /53.0°W Jeffersons
I10 5 /53.0°W El Humor Es Una Cosa Esplendorosa (Humor Is a Splendid Thing)

0315 GMT

B01 1 /65.0°W Jornal da Globo (World Journal): Noticias (News).
I06 5 /27.5°W Los Archivos de Andros (The Archives of Andros)
I07 24 /31.0°W Kenia Sharp Club: Serie (Series).

0330 GMT

B01 5 /65.0°W Mini-Serie (Mini-Series)
I01 24 /1.0°W NBC Tonight Show starring Johnny Carson
I06 1 /27.5°W Los Profesionales (The Professionals)
I06 3 /27.5°W Telediario (Teledaily): Noticias (News).
I10 1 /53.0°W NOVELA-Tu O Nadie (You Or Nobody)
I10 15 /53.0°W Alice
I10 5 /53.0°W El Son Del Corazon (From the Heart)

0345 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).

0350 GMT

B01 1 /65.0°W Classe A (Class A)

0355 GMT

I10 1 /53.0°W Avance de 24 Horas (Advance of 24 Hours)

0400 GMT

I06 3 /27.5°W Serie Aventura (Adventure Series)
I10 1 /53.0°W NOVELA-Angelica
I10 15 /53.0°W Movie
I10 5 /53.0°W Dia a Dia: Noticiario (News).
S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0415 GMT

I06 5 /27.5°W Despedida (Close)

0430 GMT

I01 24 /1.0°W CNN Sports Tonite
I06 1 /27.5°W Todos Somos Colombia (We're All Colombia)
I10 1 /53.0°W 24 Horas (24 Hours): Noticiario (News).

0500 GMT

I01 24 /1.0°W ABC Nightline
I06 1 /27.5°W Cierre (Close)
I10 14 /53.0°W La Hora de Bellas Artes (The Hour of Beautiful Art)
I10 5 /53.0°W La Entrevista de Hoy (Today's Interview)

0515 GMT

I10 5 /53.0°W Televidente (Televiewer)

0530 GMT

I01 24 /1.0°W CNN Headline News
I10 1 /53.0°W Especial (Special)

0600 GMT

I01 24 /1.0°W AFRTS Sign Off: With advisories if necessary, followed by CNN commerical feed.
I10 1 /53.0°W Cine del Dos (Movie for Two)
I10 14 /53.0°W Nosotros (We)

0615 GMT

I10 5 /53.0°W Los Medicos (The Doctors)

0630 GMT

I10 14 /53.0°W Cascaritas Musicales

0700 GMT

I10 14 /53.0°W Ultima Edicion (Last Edition): Noticias (News).

0730 GMT

I10 14 /53.0°W Simbolos Patrios (Native Symbols)

0940 GMT

B01 1 /65.0°W Telecurso 1 Grau (Telecourse, 1st Level)

0945 GMT

B01 5 /65.0°W Programa Jimmy Swaggart: Religioso (Religious).

0950 GMT

B01 1 /65.0°W Telecurso 2 Grau (Telecourse, 2nd Level)

1000 GMT

B01 1 /65.0°W Bom Dia, Brasil (Good Morning, Brazil): Economico (Economics).
S04 6 /14.0°W Intervision News unilaterals from Afganistan, Mongolia, and Viet Nam

1015 GMT

B01 5 /65.0°W Qualificacao Profissional (Professional Qualifications): Educativo (Educational).

1030 GMT

B01 1 /65.0°W Bom Dia, Brasil (Good Morning, Brazil): Economico (Economics).
B01 5 /65.0°W Show de Desenhos (Cartoons).
I06 5 /27.5°W Hola, Que Tal! (Hello, How's It Going!)

1050 GMT

S04 -1 /14.0°W Dokumental'Nye Fil'my (Documentary Film)

1100 GMT

B01 1 /65.0°W TV Mulher (TV Woman)
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.

THE AMERICAS

All times are Greenwich Meridian time

1130 GMT

B01 5 /65.0°W Ao Despertar da Fe (To Awaken Faith): Religioso (Religious).
I05 24 /24.5°W CBS and NBC News Feeds from London

1200 GMT

B01 5 /65.0°W Ella (She): Programa feminino (Women's program).
I10 15 /53.0°W News
I10 5 /53.0°W El Hombre y El Campo (Man and the Country): Informacion agropecuaria (Farming information).

1230 GMT

B01 1 /65.0°W Balao Magico (The Magic Balloon): Desenhos (Cartoons).
I07 24 /31.0°W Telescuela Tecnica (Technical School): Educativo (Educational).
I10 5 /53.0°W Capacitacion (Preparation)

1300 GMT

I01 24 /1.0°W Sign On
I07 24 /31.0°W Buen Dia Maria (Good Day Maria): Clases de gimasia (Gymnastics classes).
I10 1 /53.0°W Hoy Mismo (Today In Itself): Noticias y variedades (News and variety).
I10 14 /53.0°W Desde Temprano (Since Early): Revista noticiera, cultural y deportiva (News, cultural, and sports reviews).
I10 5 /53.0°W Secundaria Intensiva (Intensive High School)
S04 6 /14.0°W UPITN News from London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W ABC World News AM
I10 15 /53.0°W Sun Up San Diego

1400 GMT

B01 5 /65.0°W Elle (He): Variedades (Variety).
F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W NBC Today Show
I05 24 /24.5°W UPITN News London
I06 5 /27.5°W La Abejita Maya (Maya, the Little Bee)
I07 24 /31.0°W Smith y Jones (Smith and Jones): Serie (Series).
I10 22 /53.0°W Matinal Infantil (Children's Morning Show)
I10 5 /53.0°W Telesecundaria (Tele-High School)

1420 GMT

B01 5 /65.0°W A Maravilhosa Cozinha de Ofelia (Ofelia's Marvelous Kitchen): Culinaria (Culinary arts).

1430 GMT

I05 24 /24.5°W Visnews for Middle East and Europe
I06 5 /27.5°W Teatro Internacional (International Theater)
I10 15 /53.0°W The New $25,000 Pyramid

1445 GMT

I06 1 /27.5°W Circuito Electrico Agropecuario (Farming Electrical Circuit)
S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

1455 GMT

B01 5 /65.0°W Boa Vontade (Good Will): Religioso (Religious).

1500 GMT

B01 5 /65.0°W SPORTS-Esporte Total (Total Sports)
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I06 1 /27.5°W Caminito Alegre (Happy Little Road)
I06 5 /27.5°W Aqui Esta Lucy (Here's Lucy)
I07 24 /31.0°W Vivir Bien (To Live Well)

1525 GMT

I06 1 /27.5°W La Tierra y el Hombre (The Land and Man)

1530 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).
B01 5 /65.0°W Amor (Love): Variedades (Variety).
I06 5 /27.5°W Favoritos de Monitor Hipico (Horse Races)
I07 24 /31.0°W Noticieros (News).
I10 15 /53.0°W Press Your Luck
I10 22 /53.0°W Festival de la Una (Festival for One)

1545 GMT

B01 1 /65.0°W SPORTS-TV Globo Esporte (World Sports): Noticias y esporte (News and sports).
I06 1 /27.5°W Catequesis (Catechizm)

1600 GMT

B01 1 /65.0°W Hoje (Today)
B01 5 /65.0°W TV Crianca (Childrens' TV): Children's programming.
I01 24 /1.0°W CNN Headline News
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I06 5 /27.5°W La Noticia: News.
I07 24 /31.0°W Cordialmente (Cordially): Periodistico (Journalism).

1630 GMT

B01 1 /65.0°W NOVELA-Vale a Pena Ver de Novo (It's Worth the Trouble to Look Again)
I01 24 /1.0°W ESPN Sportscenter or CNN Headline News
I06 1 /27.5°W NOVELA-Dancin' Days
I06 3 /27.5°W Novela
I06 5 /27.5°W Almorzando con Orlando (Lunching With Orlando)

1700 GMT

I01 24 /1.0°W CNN Take Two: Hour 2.
I05 24 /24.5°W Visnews London: Early evening news feeds for SABC Johannesburg.
I06 1 /27.5°W Teatro (Theater)
I07 24 /31.0°W 20 Mujeres (20 Women): Periodistico (Journalism).
I10 1 /53.0°W Vida Diaria (Living Diary)
I10 14 /53.0°W La Novela (The Novel)
I10 15 /53.0°W The Price is Right: Game show.
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1730 GMT

B01 1 /65.0°W Festival de Ferial (Festival of Holidays)
I06 1 /27.5°W Noticias Uno (News One)
I10 22 /53.0°W Edicion Uno (First Edition): Noticias (News).

1745 GMT

I10 22 /53.0°W Chispita: Teleseie (Teleseries).

1800 GMT

I01 24 /1.0°W CNN Headline News
I06 1 /27.5°W Telenovela Regional (Regional Telenovel)
I06 5 /27.5°W NOVELA-La Pasion de Isabela (Isabel's Passion)
I10 14 /53.0°W NOVELA-Lupita
I10 15 /53.0°W NOVELA-The Young and Restless

1815 GMT

I10 22 /53.0°W Un Minuto eb la Moda (One Minute in Fashion)

1820 GMT

I10 22 /53.0°W La Feira (The Hustler): Teleserie (Teleseries).

1830 GMT

I01 24 /1.0°W SPORTS-American Interests
I06 1 /27.5°W La Tierra y el Hombre (The Land and Man)
I10 1 /53.0°W Club del Hogar (The Home Club): Variedades y humorismo (Variety and humor).
I10 14 /53.0°W Sal y Pimienta (Salt and Pepper)

1850 GMT

I06 1 /27.5°W Catequesis (Catechizm)

1855 GMT

I10 22 /53.0°W Arean 12: Serie policial (Police series).

1900 GMT

I01 24 /1.0°W McLaughlin Group
I06 1 /27.5°W Discubro Mi Mundo (I Discover My World)
I06 5 /27.5°W Maria de Los Angeles (Maria of Los Angeles)
I07 24 /31.0°W Telejuegos (Telegames): Infantil (Children's programming).
I10 14 /53.0°W De Tres en Tres (Three on Three)
I10 15 /53.0°W News

1910 GMT

I05 24 /24.5°W OTI: SIN News.

1930 GMT

B01 1 /65.0°W Sessao Aventura (Adventure Session)
I01 24 /1.0°W Entertainment This Week: Entertainment news program from Hollywood, California.
I05 24 /24.5°W RTP News from Lisbon, Portugal
I06 1 /27.5°W Caminito Alegre (Happy Little Road)
I10 14 /53.0°W Artesanos y Orfebres (Artesians and Goldsmiths)

1950 GMT

I06 1 /27.5°W Catequesis (Catechizm)
I08 24 /34.5°W UPITN DSSA News Unilaterals: Including Globo, Canadian CTV, and US network feeds.

2000 GMT

I06 3 /27.5°W Oso Manosos (The Clever Bear)
I06 5 /27.5°W Galactico (Galaxy)
I10 1 /53.0°W 24 Horas de la Tarde (24 Hours in the Afternoon): Noticias (News).
I10 14 /53.0°W Primera Edicion (First Edition): Noticias (News).
I10 15 /53.0°W NOVELA-As the World Turns
I10 22 /53.0°W Dibujos Animados (Cartoons)
I10 5 /53.0°W El Que Sabe Sabe (He Who Knows Knows)

2010 GMT

I06 1 /27.5°W Discubro Mi Mundo (I Discover My World)

2015 GMT

B01 1 /65.0°W Sitio do Picapau Amarelo (Site of the Yellow Woodpecker)

2020 GMT

I10 22 /53.0°W MOVIE-Tardes de Cine (The Afternoon Movie)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I01 24 /1.0°W CNN Headline News
I06 3 /27.5°W Magnificos Justicieros (Austere Magnificents)
I06 5 /27.5°W La Pequena Casa de la Pradera (Little House on the Prairie)
I10 1 /53.0°W Videoexitos (Video Outcomes)
I10 14 /53.0°W El Bazar (The Bazaar)
I10 15 /53.0°W Capitol
I10 5 /53.0°W Capacitacion (Preparation)

2035 GMT

I06 1 /27.5°W Caminito Alegre (Happy Little Road)

2045 GMT

I05 24 /24.5°W Visnews London

2055 GMT

B01 1 /65.0°W NOVELA-A Gata Comeu

2100 GMT

B01 5 /65.0°W Jeannie E Um Genio (I Dream of Jeannie): Seriado (Series).
I01 24 /1.0°W CNN Take Two: Hour 1.
I06 1 /27.5°W Musica de Radio Nacional (Music of National Radio)

I06 3 /27.5°W Esper
I07 24 /31.0°W Simon y Simon (Simon and Simon): Serie (Series).
I10 14 /53.0°W Ocio and Cultura (Leisure and Culture): Criticas y comentarios (Critiques and commentaries).
I10 15 /53.0°W NOVELA-Guiding Light
I10 5 /53.0°W Guia de Cada Dia (Daily Guide)

2130 GMT

B01 5 /65.0°W A Feiticeira: Serie (Series).
I06 1 /27.5°W La Flauta Magica (The Magic Flute)
I06 3 /27.5°W The Invisible Boy: Action, adventure.
I06 5 /27.5°W Ocho Son Suficientes (Eight is Enough)
I10 1 /53.0°W MOVIE-Nuestro Cine Presenta...Las Estrellas y Usted (Our Movie Presentation...The Stars and You)
I10 14 /53.0°W La Guia de Cada Dia (Each Day's Guide)
I10 5 /53.0°W Pequenos Viajeros (Little Travelers)

2145 GMT

B01 1 /65.0°W NOVELA-Um Sonho a Mais (Another Dream)

2200 GMT

B01 5 /65.0°W O Gordo y O Magro (Laurel and Hardy): Serie (Series).
I01 24 /1.0°W AFRTS Advisory Block: Schedules, advisories and color bars.
I05 24 /24.5°W CBS International: News unilaterals to South America.
I06 1 /27.5°W Pequenos Gigantes (The Little Giants): Dibujos animados (Cartoons).
I06 3 /27.5°W Teleidiomas (Telelanguage)
I07 24 /31.0°W Gente Como la Gente (People Like People): Telecomedia (Telecomedy).
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.
I10 14 /53.0°W La Casa de Paco (Paco's House): Children's programming.
I10 15 /53.0°W Hour Magazine
I10 5 /53.0°W El Hada Chappie (Chappie the Fairy): Dibujos animados (Cartoons).

2215 GMT

B01 5 /65.0°W Jornal do Rio: Noticias (News).

2230 GMT

B01 5 /65.0°W Jornal Bandeirantes: Noticias nacionais e internacionais (National and international news).
I01 24 /1.0°W ABC World News Tonight
I06 1 /27.5°W Fantasia (Fantasy)
I06 3 /27.5°W Gente Del Manana (Tomorrow's People)
I06 5 /27.5°W Cine Cine (Movie)
I07 24 /31.0°W Noticiero (News).
I10 14 /53.0°W Viva la Revolucion (Long Live the Revolution)
I10 5 /53.0°W Mi Mundo de Cabeza: Cuentos clasicos infantiles (Classic children's tales).

2245 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).
I10 14 /53.0°W Programa de Partidos Politicos (Program of Political Parties)
I10 22 /53.0°W Chispita (Little Spark)

2255 GMT

B01 1 /65.0°W Jornal Nacional (National Journal): Noticias (News).

2300 GMT

B01 5 /65.0°W Guerra, Sombra E Agua Fresca (War, Shade and Fresh Water)
I01 24 /1.0°W NBC Nightly News
I06 1 /27.5°W Cafe Concierto: Concert.
I06 3 /27.5°W Disco Club: Pop music videos.
I07 24 /31.0°W Mesa de Noticias (News Desk): Humoristico (Comedy program).
I10 1 /53.0°W : El Tesoro del Saber (The Treasure of Knowledge)
I10 14 /53.0°W Mexico Desconocido (The Unknown Mexico)
I10 15 /53.0°W M.A.S.H.: Comedy.
I10 5 /53.0°W Sabias Tu Que... (You Know That...)
S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

2325 GMT

B01 1 /65.0°W NOVELA-Roque Santeiro

2330 GMT

B01 5 /65.0°W Oito E Meia (Eight and a Half): Variedades (Variety).
I01 24 /1.0°W CBS Evening News
I06 1 /27.5°W Juventud '85 (Youth '85): Music and dance.
I06 3 /27.5°W Telediario (Telediaily): Noticias (News).
I10 1 /53.0°W Abandonado (Abandoned)
I10 14 /53.0°W Musica y Algo Mas (Music and Something More)
I10 15 /53.0°W Cartoon
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).
I10 5 /53.0°W Cambio (Change)

2355 GMT

I06 5 /27.5°W Mafalda

THURSDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I06 1 /27.5°W Noticiero 24 Horas (24 Hours): Noticias (News).
I06 5 /27.5°W Las Noticias de VTV (News From VTV)
I07 24 /31.0°W Historias de la Argentina Secreta (Stories of the Secret Argentina): Documental (Documentary).
I10 1 /53.0°W Principessa
I10 15 /53.0°W What's Happening
I10 5 /53.0°W Los Estados de Mexico (The States of Mexico)
I10 5 /53.0°W Los Estados de Mexico (The States of Mexico)

0005 GMT

B01 5 /65.0°W Jornal de Copa: Boletim informativo sobre o Mundial do Mexico (Mexican news).

0015 GMT

B01 5 /65.0°W Marilia, Gabi Babriela: Entrevistas, musicals e variedades (Interviews, music and variety).

0020 GMT

B01 1 /65.0°W Chico Anysio Show

0025 GMT

I06 1 /27.5°W El Minuto de Dios (One Minute for God)

0030 GMT

I06 1 /27.5°W Al Banquillo Con Margarita (Margaret's Bench): Periodistico (Journalism).
I06 3 /27.5°W Telediario (Telediaily): Noticias (News).
I06 5 /27.5°W Dossier
I10 1 /53.0°W Los Anos Pasan (The Years Pass)
I10 14 /53.0°W NOVELA-Lupita
I10 15 /53.0°W I'm a Big Girl Now: Comedy.
I10 22 /53.0°W Magnum, P.I.: Serie de accion (Action series).
I10 5 /53.0°W El Mundo De... (The World of...)

0100 GMT

I01 24 /1.0°W CBS Evening News: West Coast Feed
I06 1 /27.5°W Profesion Peligro (Dangerous Profession)
I06 5 /27.5°W Baila Conmigo (Dance With Me)
I07 24 /31.0°W Cine (Movie)
I10 1 /53.0°W Juana Iris
I10 14 /53.0°W Siete Dias (Seven Days): Noticias (News).
I10 15 /53.0°W News
I10 5 /53.0°W Yanga

0115 GMT

B01 1 /65.0°W Festival Nacional (National Festival)

0130 GMT

I01 24 /1.0°W MacNeil, Lehrer Report
I06 1 /27.5°W TV Crucigrama (TV Crossword Puzzle)
I10 1 /53.0°W Xetu: Concurso (Game show).
I10 14 /53.0°W Webster: Comedia (Comedy).
I10 15 /53.0°W That's Incredible
I10 22 /53.0°W Quincy

0155 GMT

I10 1 /53.0°W 24 Horas (24 Hours) : Noticias (News).

0200 GMT

I06 1 /27.5°W Guerra de Estrellas (War of the Stars): Programa concurso (Contest).
I06 3 /27.5°W Los Rivales de Sherlock Holmes (The Rivals of Sherlock Holmes)
I06 5 /27.5°W NOVELA-Corazon Indomito (Untamed Heart)
I10 1 /53.0°W Que Lio Con Este Trio (What Confusion with this Trio)
I10 14 /53.0°W La Vida Intima del Tercer Reich (The Intimate Life of the Third Reich)
I10 15 /53.0°W Entertainment Tonight
I10 5 /53.0°W Por Los Caminos de Mexico (By the Roads of Mexico): Concurso (Contest).

0215 GMT

B01 5 /65.0°W Jornal da Noite (Night Journal): Noticias (News).

0225 GMT

B01 5 /65.0°W Dinheiro (Money): Economia (Economy).

0230 GMT

B01 5 /65.0°W Canal Livre (Free Channel): Jornalistico de entrevista e debates (Interviews and debates).
I01 24 /1.0°W CNN Continues
I06 1 /27.5°W Noticiero T.V. Hoy (Today's TV News)
I10 1 /53.0°W Salon De Belleza (Beauty Salon)
I10 15 /53.0°W San Diego At Large
I10 22 /53.0°W Edicion Dos (Second Edition): Noticias (News).

0300 GMT

I06 1 /27.5°W Telenovela Nacional (National Telenovel)
I06 3 /27.5°W Cine Como en El Cine (Movie Like At The Movies)
I06 5 /27.5°W La Entrevista de Hoy (Today's Interview)
I07 24 /31.0°W Kenia Sharp Club: Serie (Series).
I10 1 /53.0°W Nuevas Noches con Talina Fernandez (New Nights with Talina Fernandez)
I10 14 /53.0°W La Hora Espectacular (The Spectacular Hour)
I10 15 /53.0°W Movie
I10 5 /53.0°W Condominio Horizontal (Condominium): Comedia (Comedy).

0315 GMT

B01 1 /65.0°W Jornal da Globo (World Journal): Noticias (News).
I06 5 /27.5°W Los Archivos de Andros (The Archives of Andros)
I10 22 /53.0°W Cine de Trasnoche (Movie)

0330 GMT

B01 5 /65.0°W Mini-Serie (Mini-Series)
I01 24 /1.0°W NBC Tonight Show starring Johnny Carson
I06 1 /27.5°W Al Este Del Paraiso (East of Paradise)
I10 1 /53.0°W NOVELA-Tu O Nadie (You or Nobody)
I10 5 /53.0°W Azul (Blue): Recordando a los grandes autores de la musica romantica en Mexico (Rememebering the great authors

THE AMERICAS

All times are Greenwich Meridian time

of the romantic music in Mexico).

0345 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).

0350 GMT

B01 1 /65.0°W Campeoes de Bilhetaria (Box-office Champions)

0355 GMT

I10 1 /53.0°W 24 Horas (24 Hours): Noticiario (News).

0400 GMT

I06 1 /27.5°W Vida Salvaje (Wild Life): Aspectos de la fauna y la flora nacional (Aspects of the national fauna and flora).
I10 1 /53.0°W NOVELA-Angelica
I10 5 /53.0°W Dia a Dia: Noticiario (News).
S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0415 GMT

I06 5 /27.5°W Despedida (Close)

0430 GMT

I01 24 /1.0°W CNN Sports Tonite
I06 1 /27.5°W Correo de Medianoche (Midnight Mail)
I06 3 /27.5°W Telediario (Teledaily): Noticias (News).
I10 1 /53.0°W 24 Horas (24 Hours): Noticiario (News).

0500 GMT

I01 24 /1.0°W ABC Nightline
I06 1 /27.5°W Cierre (Sign Off)
I10 14 /53.0°W Lo Que El Tiempo Se Llevo (That Which Time Brings)
I10 15 /53.0°W Special
I10 22 /53.0°W Cierre (Close)
I10 5 /53.0°W La Entrevista de Hoy (Today's Interview)

0515 GMT

I10 5 /53.0°W Cine Mexicano (Mexican Movie)

0530 GMT

I01 24 /1.0°W CNN Headline News
I10 1 /53.0°W Espceial (Special)

0600 GMT

I01 24 /1.0°W AFRTS Sign Off: With advisories if necessary, followed by CNN commercial feed.
I10 1 /53.0°W Cine del Dos (Movie for Two)
I10 14 /53.0°W Horizontes (Horizons)

0630 GMT

I10 14 /53.0°W Cascaritas Musicales

0700 GMT

I10 14 /53.0°W Ultima Edicion (Last Edition): Noticias (News).

0730 GMT

I10 14 /53.0°W Simbolos Partios (Party Symbols)

0940 GMT

B01 1 /65.0°W Telecurso 1 Grau (Telecourse, 1st Level)

0945 GMT

B01 5 /65.0°W Programa Jimmy Swaggart: Religioso (Religious).

0950 GMT

B01 1 /65.0°W Telecurso 2 Grau (Telecourse, 2nd Level)

1000 GMT

B01 1 /65.0°W Bom Dia, Brasil (Good Morning, Brazil): Economico (Economics).
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.

1015 GMT

B01 5 /65.0°W Qualificacao Profissional (Professional Qualifications): Educativo (Educational).

1030 GMT

B01 1 /65.0°W Bom Dia, Brasil (Good Morning, Brazil): Economico (Economics).
B01 5 /65.0°W Show de Desenhos (Cartoons).
I05 24 /24.5°W CBS and NBC News Feeds from London
I06 5 /27.5°W Hola, Que Tal! (Hello, How's It Going!)

1050 GMT

S04 -1 /14.0°W Dokumental'Nye Fil'my (Documentary Film)

1100 GMT

B01 1 /65.0°W TV Mulher (TV Woman)

1130 GMT

B01 5 /65.0°W Ao Despertar da Fe (To Awaken Faith): Religioso (Religious).

1200 GMT

B01 5 /65.0°W Ella (She): Programa feminino (Women's program).
I10 15 /53.0°W News
I10 5 /53.0°W El Hombre y El Campo (Man and the Country): Informacion agropecuaria (Farming information).

1230 GMT

B01 1 /65.0°W Balao Magico (The Magic Balloon): Desenhos (Cartoons).
I07 24 /31.0°W Telescuela Tecnica (Technical School): Educativo (Educational).
I10 5 /53.0°W Capacitacion (Preparation)

1300 GMT

I01 24 /1.0°W Sign On
I05 24 /24.5°W UPITN News London
I07 24 /31.0°W Buen Dia Maria (Good Day Maria): Clases de gimasia (Gymnastics classes).
I10 1 /53.0°W Hoy Mismo (Today In Itself): Noticias y variedades (News and variety).
I10 14 /53.0°W Desde Temprano (Since Early): Revista noticiera, cultural y deportiva (News, cultural, and sports reviews).
I10 5 /53.0°W Secundaria Intensiva (Intensive High School)
S04 6 /14.0°W UPITN News from London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W ABC World News AM
I05 24 /24.5°W Visnews for Middle East and Europe
I10 15 /53.0°W Sun Up San Diego

1400 GMT

B01 5 /65.0°W Elle (He): Variedades (Variety).
F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W NBC Today Show
I06 5 /27.5°W La Abejita Maya (Maya, the Little Bee)
I07 24 /31.0°W Smith y Jones (Smith and Jones): Serie (Series).
I10 22 /53.0°W Los Muppets (The Muppets: Programa infantil (Children's programming).
I10 5 /53.0°W Telesecundaria (Tele-High School)

1420 GMT

B01 5 /65.0°W A Maravilhosa Cozinha de Ofelia (Ofelia's Marvelous Kitchen): Culinaria (Culinary arts).

1425 GMT

I10 22 /53.0°W La Cocina de Monica (Monica's Kitchen)

1430 GMT

I06 5 /27.5°W Teatro Internacional (International Theater)
I10 15 /53.0°W The New $25,000 Pyramid
I10 22 /53.0°W Mazapan: Programa infantil (Children's programming).

1445 GMT

I06 1 /27.5°W Circuito Electrico (Electric Circuit)
S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

1455 GMT

B01 5 /65.0°W Boa Vontade (Good Will): Religioso (Religious).

1500 GMT

B01 5 /65.0°W SPORTS-Esporte Total (Total Sports)
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I06 5 /27.5°W Familia (Family)
I07 24 /31.0°W Vivir Bien (To Live Well)
I10 22 /53.16128° Festival de la Una (Festival for One)

1530 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).
B01 5 /65.0°W Amor (Love): Variedades (Variety).
I07 24 /31.0°W Noticieros (News).
I10 15 /53.0°W Press Your Luck

1545 GMT

B01 1 /65.0°W SPORTS-TV Globo Esporte (World Sports): Noticias y esporte (News and sports).

1600 GMT

B01 1 /65.0°W Hoje (Today)
I01 24 /1.0°W CNN Headline News
I05 24 /24.5°W Eurovision Brussels: European News Unilateral Exchanges.
I06 5 /27.5°W La Noticia: News.
I07 24 /31.0°W Cordialmente (Cordially): Periodistico (Journalism).

1630 GMT

B01 1 /65.0°W NOVELA-Vale a Pena Ver de Novo (It's Worth the Trouble to Look Again)
B01 5 /65.0°W TV Crianca (Childrens' TV): Children's programming.
I01 24 /1.0°W SPORTS-ESPN Sportscenter
I06 1 /27.5°W NOVELA-Dancin' Days
I06 5 /27.5°W Almorzando con Orlando (Lunching With Orlando)

1700 GMT

I01 24 /1.0°W CNN Take Two: Hour 2.
I05 24 /24.5°W Visnews London: Early evening news feeds for SABC Johannesburg.
I06 1 /27.5°W Camina Hacia el Deporte (Road About Sports)
I07 24 /31.0°W 20 Mujeres (20 Women): Periodistico (Journalism).
I10 1 /53.0°W Vida Diaria (Living Diary)
I10 14 /53.0°W La Novela (The Novel)
I10 15 /53.0°W The Price is Right: Game show.
I10 22 /53.0°W Edicion Uno (First Edition): Noticias (News).
S04 -1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1730 GMT

B01 1 /65.0°W Festival de Ferias (Festival of Holidays)
I06 1 /27.5°W Noticias Uno: News.
I10 22 /53.0°W Chispita: Teleserie (Teleseries).

1800 GMT

I01 24 /1.0°W CNN Headline News
I06 1 /27.5°W Telenovela Regional (Regional Telenovel)
I06 5 /27.5°W NOVELA-La Pasion de Isabela (Isabela's Passion)
I10 14 /53.0°W NOVELA-Lupita
I10 15 /53.0°W NOVELA-The Young and Restless
S04 -1 /14.0°W Leninskij Universitet Millionov (Lenin University for the Millions).

1805 GMT

I10 22 /53.0°W Amalia Batista: Teleserie (Teleseries).

1830 GMT

I01 24 /1.0°W CNN Continues
I06 1 /27.5°W Matematica (Mathematics)
I10 1 /53.0°W Club del Hogar (The Home Club): Variedades y humorismo (Varieties and humor).
I10 14 /53.0°W Sal y Pimienta (Salt and Pepper)

1850 GMT

I06 1 /27.5°W Avancemos (Let's Advance)

1900 GMT

I01 24 /1.0°W CNN Continues
I06 1 /27.5°W Musica (Music)
I06 5 /27.5°W Maria de Los Angeles (Maria of Los Angeles)
I07 24 /31.0°W Telejuegos (Telegames): Infantil (Children's programming).
I10 14 /53.0°W Consulte a Su Medico (Consult Your Doctor)
I10 15 /53.0°W News
I10 22 /53.0°W Fama (Fame): Drama serie (Drama Series).

1910 GMT

I05 24 /24.5°W OTI: SIN News.

1930 GMT

B01 1 /65.0°W Sessao Aventura (Adventure Session)
I01 24 /1.0°W Solid Gold: American pop music show counts down the top ten tunes of the week.
I10 14 /53.0°W El Proyecto del Dia (The Project of the Day)

1935 GMT

I06 1 /27.5°W Catequesis (Catechizm)

1950 GMT

I06 1 /27.5°W Especial (Special)
I08 24 /34.5°W UPITN DSSA News Unilaterals: Including Globo, Canadian CTV, and US network feeds.

2000 GMT

I06 3 /27.5°W La Mole (The Mass)
I06 5 /27.5°W Don Quixote y los Cuentos de la Mancha (The Tales of Don Quixote)
I10 1 /53.0°W 24 Horas de la Tarde (24 Hours in the Afternoon): Noticias (News).
I10 14 /53.0°W Primera Edicion (First Edition): Noticias (News).
I10 15 /53.0°W NOVELA-As The World Turns
I10 5 /53.0°W El Que Sabe Sabe (He Who Knows Knows)

2010 GMT

I06 1 /27.5°W Musica (Music)
I10 22 /53.0°W MOVIE-Tardes de Cine (The Afternoon Movie)

2015 GMT

B01 1 /65.0°W Sitio do Picapau Amarelo (Site of the Yellow Woodpecker)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I01 24 /1.0°W CNN Headline News
I06 3 /27.5°W Magnificos Justicieros (Austere Magnificents)
I06 5 /27.5°W La Pequena Casa de la Pradera (Little House on the Prairie)
I10 1 /53.0°W Videoexitos (Video Outcomes)
I10 14 /53.0°W El Bazar (The Bazaar)
I10 15 /53.0°W Capitol
I10 5 /53.0°W Capacitacion (Preparation)

2035 GMT

I06 1 /27.5°W Catequesis (Catechizm)

2040 GMT

I05 24 /24.5°W Visnews London

2050 GMT

I06 1 /27.5°W Musica de Radio Nacional (Music of the National Radio)

2055 GMT

B01 1 /65.0°W NOVELA-A Gata Comeu

2100 GMT

B01 5 /65.0°W Jeannie E Um Genio (I Dream of Jeannie): Seriado (Series).
I01 24 /1.0°W CNN Take Two: Hour 1.
I06 3 /27.5°W Muggsy
I07 24 /31.0°W El Principe de Otra Galaxia (The Prince from Another Galaxy: Serie (Series).
I10 14 /53.0°W Ocio and Culture (Leisure and Culture)
I10 15 /53.0°W NOVELA-Guiding Light
I10 5 /53.0°W Guia de Cada Dia (Daily Guide)

2115 GMT

I10 1 /53.0°W Partidos Politicos (Political Parties)

2130 GMT

B01 5 /65.0°W A Feiticeira: Serie (Series).
I05 24 /24.5°W Visnews
I06 1 /27.5°W Los Dumis
I06 3 /27.5°W Mounstruos del Espacio (Monsters of Space)
I06 5 /27.5°W Ocho Son Suficientes (Eight is Enough)
I10 1 /53.0°W Nuestro Cine Presenta...Tardes de Juventud (Our Movie Presentation...Children's Afternoon)
I10 14 /53.0°W La Guia de Cada Dia (Each Day's Guide)
I10 5 /53.0°W Pequenos Viajeros (Little Travelers)

2145 GMT

B01 1 /65.0°W NOVELA-Um Sonho a Mais (Another Dream)

2200 GMT

B01 5 /65.0°W O Gordo y O Magro (Laurel and Hardy): Serie (Series).
I01 24 /1.0°W AFRTS Advisory Block: Schedules, advisories and color bars.
I06 1 /27.5°W Pequenos Gigantes (Little Giants)
I06 3 /27.5°W Teleidiomas (Telelanguage)
I07 24 /31.0°W Gente Como la Gente (People Like People): Telecomedia (Telecomedy).
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.
I10 14 /53.0°W Circulo de la Imaginacion (Circle of the Imagination)
I10 15 /53.0°W Hour Magazine
I10 5 /53.0°W Viva Yo: Educativo, infantil (Educational children's programming).

2205 GMT

I05 24 /24.5°W CBS International: News unilaterals to South America.

2210 GMT

I05 24 /24.5°W NBC News Feeds

2215 GMT

B01 5 /65.0°W Jornal do Rio: Noticias (News).

2220 GMT

I10 22 /53.0°W Marta a la Ocho (Marta at Eight)

2230 GMT

B01 5 /65.0°W Jornal Bandeirantes: Noticias nacionais e internacionais (National and international news).
I01 24 /1.0°W ABC World News Tonight
I06 1 /27.5°W Llano Adentro (Smoothe Inside)
I06 3 /27.5°W Gente del Manana (Tomorrow's People)
I06 5 /27.5°W Cine Cine (Movie)
I07 24 /31.0°W Noticiero (News).
I10 14 /53.0°W Vamos a Todos Partes (Let's Go Everywhere)
I10 5 /53.0°W Mi Mundo de Cabeza: Cuentos clasicos infantiles (Classic children's tales).

2240 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).

2255 GMT

B01 1 /65.0°W Jornal Nacional (National Journal): Noticias (News).

2300 GMT

B01 5 /65.0°W M.A.S.H.: Comedia (Comedy).
I01 24 /1.0°W NBC Nightly News
I05 24 /24.5°W UPITN for Latin America
I06 1 /27.5°W Panorama
I06 3 /27.5°W Conociendo el Cuerpo Humano (Knowing the Human Body)
I07 24 /31.0°W Mesa de Noticias (News Desk): Telecomidia (Comedy).
I10 1 /53.0°W El Tesoro del Saber (The Treasure of Knowledge)
I10 14 /53.0°W Cifra (Emblem)
I10 15 /53.0°W M.A.S.H.: Comedy.
I10 5 /53.0°W Chispa (Spark)
S04 -1 /14.0°W Segodnya V Mire (Today in the World): World News.

2325 GMT

B01 1 /65.0°W NOVELA-Roque Santeiro

2330 GMT

B01 5 /65.0°W Oito E Meia (Eight and a Half): Variedades (Variety).
I01 24 /1.0°W CBS Evening News
I06 3 /27.5°W Disco Club: Pop music videos.
I10 1 /53.0°W NOVELA-Abandonada (Abandoned)
I10 14 /53.0°W Musica y Algo Mas (Music and Something More)
I10 15 /53.0°W Cartoon
I10 22 /53.0°W 60 Minutos (60 Minutes): Noticias (News).
I10 5 /53.0°W Jueves de Estreno (Thursday Debut)

2355 GMT

I06 5 /27.5°W Mafalda

FRIDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I06 5 /27.5°W Las Noticias de VTV (News From VTV)
I07 24 /31.0°W Veinte Hombres (Twenty Men): Periodistico (Journalism).
I10 1 /53.0°W NOVELA-Principessa
I10 15 /53.0°W What's Happening

0005 GMT

B01 5 /65.0°W Jornal da Copa: Boletim informativo sobdre o Mundial do Mexico (Mexican news).

0015 GMT

B01 5 /65.0°W Quinta Espetacular (Thursday Spectacular)

0020 GMT

B01 1 /65.0°W Globo Reporter (Global Reporter)

0030 GMT

I06 3 /27.5°W Telediario (Teledaily): Noticias (News).
I06 5 /27.5°W Dossier
I10 1 /53.0°W NOVELA-Los Anos Pasan (The Years Pass)
I10 14 /53.0°W NOVELA-Lupita
I10 15 /53.0°W I'm a Big Girl Now: Comedy.
I10 22 /53.0°W Franja Cultural (Cultural Fringe)
I10 5 /53.0°W Casi Un Siglo en el Aire (Almost a Century in the Air): Historia de la radio en Mexico (History of Mexican radio).

0100 GMT

I01 24 /1.0°W CBS Evening News: West Coast Feed
I06 3 /27.5°W Lord Mountbatten
I06 5 /27.5°W Baila Conmigo (Dance With Me)
I07 24 /31.0°W Situacion Limite (Situation Limited)
I10 1 /53.0°W NOVELA-Juana Iris
I10 14 /53.0°W Siete Dias (Seven Days): Noticias (News).
I10 15 /53.0°W News
I10 5 /53.0°W La Hazana de Mexico (Mexico's Feat)

0115 GMT

B01 1 /65.0°W Festival Nacional (National Festival)

0130 GMT

I01 24 /1.0°W MacNeil, Lehrer Report
I10 1 /53.0°W Xe Tu, Canta Contest (Xe Tu, The Singing Contest): Concurso (Contest).
I10 14 /53.0°W Nuestra Nacionalidad (Our Nationality)
I10 15 /53.0°W That's Incredible

0155 GMT

I10 1 /53.0°W 24 Horas (24 Hours): Noticiario (News).

THE AMERICAS

All times are Greenwich Meridian time

0200 GMT

I06 3 /27.5°W **Los Herederos (The Heirs)**
I06 5 /27.5°W **NOVELA-Corazon Indomito (Untamed Heart)**
I07 24 /31.0°W **El Pais Que Debemos Cambiar (The Country We Must Change):** Periodistico (Journalism).
I10 1 /53.0°W **El Show de las Estrellas (The Show of The Stars)**
I10 14 /53.0°W **Condenado a Cadena Perpetua**
I10 15 /53.0°W **Entertainment Tonight**
I10 5 /53.0°W **Espana Frente a la Visita del Presidente (Spain Before the President's Visit)**

0215 GMT

B01 5 /65.0°W **Jornal da Noite (Night Journal):** Noticias (News).

0225 GMT

B01 5 /65.0°W **Dinheiro (Money):** Economia (Economy).

0230 GMT

B01 5 /65.0°W **Nossa Cidade (Our City):** Jornalistico (Journalism).
I01 24 /1.0°W **CNN Continues**
I10 1 /53.0°W **Cosas de Casados (About Married People)**
I10 15 /53.0°W **San Diego At Large**
I10 22 /53.0°W **Edicion Dos (Second Edition):** Noticias (News).
I10 5 /53.0°W **Gane Con Los Grandes (Big Winners):** Concurso (Contest).

0300 GMT

I06 3 /27.5°W **Cine Como En El Cine (Movie Like At The Movies)**
I06 5 /27.5°W **La Entrevista de Hoy (Today's Interview)**
I07 24 /31.0°W **Kenia Sharp Club:** Serie (Series).
I10 1 /53.0°W **No Empujen (Don't Push):** Comedia (Comedy).
I10 14 /53.0°W **Pelicula (Movie)**
I10 15 /53.0°W **Magnum, P.I.:** Detective series.
I10 22 /53.0°W **Clasicos del Cine (Movie Classics)**
I10 5 /53.0°W **Noches de Garibaldi (Garibaldi's Night):** Comico, musical folclorico (Comical, folk music).

0315 GMT

B01 1 /65.0°W **Jornal da Globo (World Journal):** Noticias (News).
I06 5 /27.5°W **A Los Toros (At the Bullfights)**

0330 GMT

B01 5 /65.0°W **Mini-Serie (Mini-Series)**
I01 24 /1.0°W **NBC Tonight Show starring Johnny Carson**
I10 1 /53.0°W **NOVELA-Tu O Nadie (You of Nobody)**

0345 GMT

B01 1 /65.0°W **R.J. TV:** Noticias (News).
I06 5 /27.5°W **El Show de Benny Hill (The Benny Hill Show)**

0350 GMT

B01 1 /65.0°W **Codigo Penal (Penal Code)**

0355 GMT

I10 1 /53.0°W **Advance de 24 Horas (Advance of 24 Hours)**

0400 GMT

I10 1 /53.0°W **NOVELA-Angelica**
I10 14 /53.0°W **Los Jefes (The Bosses)**
I10 15 /53.0°W **Simon and Simon:** Detective series.
I10 5 /53.0°W **Dia a Dia:** Noticiario (News).
S04 -1 /14.0°W **Vremya (Time):** The Moscow Morning News.

0415 GMT

I06 5 /27.5°W **Despedida**

0430 GMT

I01 24 /1.0°W **CNN Sports Tonite**
I06 3 /27.5°W **Telediario (Telediaily):** Noticias (News).
I10 1 /53.0°W **24 Horas (24 Hours):** Noticiario (News).

0500 GMT

I01 24 /1.0°W **ABC Nightline**
I10 14 /53.0°W **Blanco y Negro (White and Black)**
I10 15 /53.0°W **Knot's Landing**
I10 22 /53.0°W **Cierre (Close)**
I10 5 /53.0°W **La Entrevista de Hoy (Today's Interview)**

0505 GMT

S04 -1 /14.0°W **Fil'm (Film)**

0515 GMT

I10 5 /53.0°W **Azul (Blue)**

0530 GMT

I01 24 /1.0°W **CNN Headline News**
I10 1 /53.0°W **Cine del Dos (Movie for Two)**

0545 GMT

I10 5 /53.0°W **El Humor Es Una Cosa Esplendorosa (Humor Is a Splendid Thing)**

0600 GMT

I01 24 /1.0°W **AFRTS Sign Off:** With advisories if necessary, followed by CNN commercial feed.
I10 14 /53.0°W **El Quehacer de la Palabra (The Duty of the Word)**

0615 GMT

I10 5 /53.0°W **Lo Nuestro (Ours):** Formas de vida y costumbres del Mexicano (Forms of life and customs of the Mexican).

0630 GMT

I10 14 /53.0°W **Cascaritas Musicales**

0645 GMT

I10 5 /53.0°W **Viva la Noche (Long Live the Night):** Musica y humor (Music and humor).

0700 GMT

I10 14 /53.0°W **Ultima Edicion (Last Edition):** Noticias (News).

0730 GMT

I10 14 /53.0°W **Resumen Simbolos Partios (Political Symbols in Brief)**

0940 GMT

B01 1 /65.0°W **Telecurso 1 Grau (Telecourse, 1st Level)**

0945 GMT

B01 5 /65.0°W **Programa Jimmy Swaggart:** Religioso (Religious).

0950 GMT

B01 1 /65.0°W **Telecurso 2 Grau (Telecourse, 2nd Level)**

1000 GMT

B01 1 /65.0°W **Bom Dia, Brasil (Good Morning, Brazil):** Economico (Economics).

1015 GMT

B01 5 /65.0°W **Qualificacao Profissional (Professional Qualifications):** Educativo (Educational).

1030 GMT

B01 1 /65.0°W **Bom Dia, Brasil (Good Morning, Brazil):** Economico (Economics).
B01 5 /65.0°W **Show de Desenhos (Cartoons).**
I06 5 /27.5°W **Hola, Que Tal! (Hello, How's It Going!)**

1050 GMT

S04 -1 /14.0°W **Dokumental'Nye Fil'my (Documentary Film)**

1100 GMT

B01 1 /65.0°W **TV Mulher (TV Woman)**
I05 24 /24.5°W **Eurovision Brussels:** European News Unilateral Exchanges.

1130 GMT

B01 5 /65.0°W **Ao Despertar da Fe (To Awaken Faith):** Religioso
I05 24 /24.5°W **CBS and NBC News Feeds from London**

1200 GMT

B01 5 /65.0°W **Ella (She):** Programa feminino (Women's program).
I06 1 /27.5°W **Verano Azul (Blue Summer)**
I10 15 /53.0°W **News**
I10 5 /53.0°W **El Hombre y El Campo (Man and the Country):** Informacion agropecuaria (Farming information).

1230 GMT

B01 1 /65.0°W **Balao Magico (The Magic Balloon):** Desenhos (Cartoons).
I07 24 /31.0°W **Telescuela Tecnica (Technical School):** Educativo (Educational).
I10 5 /53.0°W **Capacitacion (Preparation)**

1300 GMT

I01 24 /1.0°W **Sign On**
I06 1 /27.5°W **Esper, El Defensor de la Tierra (Esper, the Defender of the Land)**
I06 5 /27.5°W **Panteon Nacional (National Cemetery)**
I07 24 /31.0°W **Buen Dia Maria (Good Day Maria):** Clases de gimasia (Gymnastics classes).
I10 1 /53.0°W **Hoy Mismo (Today In Itself):** Noticias y variedades (News and variety).
I10 14 /53.0°W **Desde Temprano (Since Early):** Revista noticiera, cultural y deportiva (News, cultural, and sports reviews).
I10 5 /53.0°W **Secundaria Intensiva (Intensive High School)**
S04 6 /14.0°W **UPITN News from London**

1315 GMT

S04 6 /14.0°W **Intervision News Unilaterals**

1330 GMT

I01 24 /1.0°W **ABC World News AM**
I06 1 /27.5°W **La Carabina de Ambrosio (Amborsio's Rifle):** Show comico-musical (Musical comedy).
I10 15 /53.0°W **Sun Up San Diego**

1400 GMT

B01 5 /65.0°W **Elle (He):** Variedades (Variety).
F01 1 /8.0°W **AITV News Paris**
I01 24 /1.0°W **NBC Today Show**
I05 24 /24.5°W **UPITN News London**
I06 1 /27.5°W **SPORTS-Futbol en Diferido (Soccer Match)**
I06 5 /27.5°W **Congreso Nacional (National Congress)**
I07 24 /31.0°W **Smith y Jones (Smith and Jones):** Serie (Series).
I10 22 /53.0°W **Matinal Infantil (Children's Morning Show)**
I10 5 /53.0°W **Telesecundaria (Tele-High School)**

1420 GMT

B01 5 /65.0°W **A Maravilhosa Cozinha de Ofelia (Ofelia's Marvelous Kitchen):** Culinaria (Culinary arts).

1430 GMT

I05 24 /24.5°W **Visnews for Middle East and Europe**
I10 15 /53.0°W **The New $25,000 Pyramid**
I10 22 /53.0°W **Mi Bella Genio (My Beautiful Genie)**

1445 GMT

S04 -1 /14.0°W **Segodnya V Mire (Today in the World):** World News.

1455 GMT

B01 5 /65.0°W **Boa Vontade (Good Will):** Religioso (Religious).

1500 GMT

B01 5 /65.0°W **SPORTS-Esporte Total (Total Sports)**
I06 5 /27.5°W **Desfile Militar (Military Parade)**
I07 24 /31.0°W **Vivir Bien (To Live Well)**

1505 GMT

I10 22 /53.16128° **La Cocina de Monica (Monica's Kitchen)**

1510 GMT

I10 22 /53.0°W **Festival de la Una (Festival at One):** Concursos, canciones y mucho humor (Contests, songs and humor).

1530 GMT

B01 1 /65.0°W **R.J. TV:** Noticias (News).

All times are Greenwich Meridian time

B01 5 /65.0°W **Amor (Love):** Variedades (Variety).
I06 1 /27.5°W **La Mujer Arana (Spider Woman)**
I07 24 /31.0°W **Noticieros (News).**
I10 15 /53.0°W **Press Your Luck**
S04 -1 /14.0°W **Russkaya Rech' (Russian Language)**

1545 GMT

B01 1 /65.0°W **SPORTS-TV Globo Esporte (World Sports):** Noticias y esporte (News and sports).

1600 GMT

B01 1 /65.0°W **Hoje (Today)**
B01 5 /65.0°W **TV Crianca (Childrens' TV):** Children's programming.
I01 24 /1.0°W **CNN Headline News**
I05 24 /24.5°W **Eurovision Brussels:** European News Unilateral Exchanges.
I06 1 /27.5°W **La Ciudadela del Nino (The Child's Citadel)**
I07 24 /31.0°W **Cordialmente (Cordially):** Periodistico (Journalism).

1630 GMT

B01 1 /65.0°W **NOVELA-Vale a Pena Ver de Novo (It's Worth the Trouble to Look Again)**
I01 24 /1.0°W **ESPN Sportscenter or CNN Headline News**

1700 GMT

I01 24 /1.0°W **CNN Take Two:** Hour 2.
I05 24 /24.5°W **Visnews London:** Early evening news feeds for SABC Johannesburg.
I07 24 /31.0°W **20 Mujeres (20 Women):** Periodistico (Journalism).
I10 1 /53.0°W **Vida Diaria (Living Diary)**
I10 14 /53.0°W **La Novela (The Novel)**
I10 15 /53.0°W **The Price is Right:** Game show.
S04 -1 /14.0°W **Vremya (Time):** The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W **Vremya (Time):** The Moscow Evening News, Sports, Weather.

1710 GMT

I10 22 /53.0°W **Edicion Uno (First Edition):** Noticias (News).

1730 GMT

B01 1 /65.0°W **Festival de Ferias (Festival of Holidays)**
I06 1 /27.5°W **Noticias Uno:** News.

1740 GMT

I10 22 /53.0°W **Bianca Vidal:** Serial.

1800 GMT

I06 1 /27.5°W **La Cautiva (The Captive)**
I06 5 /27.5°W **NOVELA-La Pasion de Isabela (Isabela's Passion)**
I10 14 /53.0°W **NOVELA-Lupita**
I10 15 /53.0°W **NOVELA-The Young and the Restless**

1815 GMT

I10 22 /53.0°W **Coralito (Little Chorus)**

1830 GMT

I01 24 /1.0°W **PBS Firing Line**
I10 1 /53.0°W **Club del Hogar (The Home Club):** Variedades y humorismo (Varieties and humor).
I10 14 /53.0°W **Sal Y Pimiento (Salt and Pepper)**

1900 GMT

I01 24 /1.0°W **CNN Continues**
I06 5 /27.5°W **Maria de Los Angeles (Maria of Los Angeles)**
I07 24 /31.0°W **Telejuegos (Telegames):** Infantil (Children's programming).
I10 14 /53.0°W **El Oficio de Ser Mujer (Women's Role)**
I10 15 /53.0°W **News**
I10 22 /53.0°W **El Hombre Increible (The Incredible Hulk)**

1910 GMT

I05 24 /24.5°W **OTI:** SIN News.

1930 GMT

B01 1 /65.0°W **Sessao Aventura (Adventure Session)**
I01 24 /1.0°W **To Be Announced**

1950 GMT

I08 24 /34.5°W **UPITN DSSA News Unilaterals:** Including Globo, Canadian CTV, and US network feeds.

2000 GMT

I01 24 /1.0°W **To Be Announced**
I06 3 /27.5°W **Gasparin (Casper)**
I06 5 /27.5°W **Capitan Centella (Captain Spark)**
I10 1 /53.0°W **24 Horas de la Tarde (24 Hours in the Afternoon):** Noticias (News).
I10 14 /53.0°W **Primera Edicion (First Edition):** Noticias (News).
I10 15 /53.0°W **NOVELA-As the World Turns**
I10 22 /53.0°W **Dibujos Animados (Cartoons)**
I10 5 /53.0°W **El Que Sabe Sabe (He Who Knows Knows)**

2015 GMT

B01 1 /65.0°W **Sitio do Picapau Amarelo (Site of the Yellow Woodpecker)**

2020 GMT

I10 22 /53.0°W **MOVIE-Tardes de Cine (The Afternoon Movie)**

2030 GMT

I01 19 /1.0°W **RTP News from Lisbon, Portugal**
I01 24 /1.0°W **CNN Headline News**
I06 3 /27.5°W **Magnificos Justicieros (Austere Magnificents)**
I06 5 /27.5°W **La Pequena Casa de la Pradera (Little House on the Prairie)**
I10 1 /53.0°W **Videoexitos (Video Outcomes)**
I10 14 /53.0°W **El Bazar (The Bazaar):** Programa social (Social program).
I10 15 /53.0°W **Capitol**
I10 5 /53.0°W **Capacitacion (Preparation)**

2040 GMT

I05 24 /24.5°W **Visnews London**

2050 GMT

B01 1 /65.0°W **NOVELA-A Gata Comeu**

2100 GMT

B01 5 /65.0°W **Agente 86 (Get Smart):** Serie (Series).
B01 5 /65.0°W **Jeannie E Um Genio (I Dream of Jeannie):** Seriado (Series).
I01 24 /1.0°W **CNN Take Two:** Hour 1.
I06 3 /27.5°W **Esper**
I10 14 /53.0°W **Ocio y Cultura (Leisure and Culture):** Comentarios (Commentary).
I10 15 /53.0°W **NOVELA-Guiding Light**
I10 5 /53.0°W **Guia de Cada Dia (Daily Guide)**

2130 GMT

B01 2 /65.0°W **A Feiticeira-Serie (Series).**
I05 24 /24.5°W **Visnews**
I06 3 /27.5°W **Mounstruos del Espacio (Monsters of Space)**
I06 5 /27.5°W **La Pequena Lulu (Little Lulu)**
I07 24 /31.0°W **La Sexta de ATC:** Informativo (News).
I10 1 /53.0°W **Nuestro Cine Presenta...Los Duenos de la Accion (Our Movie Presentation...The Masters of Action)**
I10 14 /53.0°W **La Guia de Cada Dia (Each Day's Guide)**
I10 5 /53.0°W **Pequenos Viajeros (Little Travelers)**

2145 GMT

B01 1 /65.0°W **NOVELA-Um Sonho a Mais (Another Dream)**

2200 GMT

B01 5 /65.0°W **O Gordo y O Magro (Laurel and Hardy):** Serie (Series).
I01 24 /1.0°W **AFRTS Advisory Block:** Schedules, advisories and color bars.
I05 24 /24.5°W **CBS International:** News unilaterals to South America.
I06 1 /27.5°W **Pequenos Gigantes (Little Giants)**
I06 3 /27.5°W **Teleidiomos (Telelanguage)**
I06 5 /27.5°W **Contesta por Tio Simon (Contest for Uncle Simon)**
I07 24 /31.0°W **Gente Como la Gente (People Like People):** Telecomedia (Telecomedy).
I08 24 /34.5°W **Globo TV NY:** News feeds from NY to Rio de Janeiro.
I10 14 /53.0°W **La Casa de Paco (Paco's House)**
I10 15 /53.0°W **Hour Magazine**
I10 22 /53.0°W **Segunda Franja Cultural (Second Cultural Fringe)**
I10 5 /53.0°W **El Hada Chappie (Chappie the Fairy):** Dibujos animados (Cartoons).

2210 GMT

I05 24 /24.5°W **NBC News Feeds**

2215 GMT

B01 5 /65.0°W **Jornal do Rio:** Noticias (News).

2230 GMT

B01 5 /65.0°W **Jornal Bandeirantes:** Noticias nacionais e internacionais (National and international news).

I01 24 /1.0°W **ABC World News Tonight**
I06 1 /27.5°W **Clasicos Infantiles de la BBC (Children's Classics of the BBC)**
I06 3 /27.5°W **Gente del Manana (Tomorrow's People)**
I07 24 /31.0°W **Noticiero (News).**
I10 14 /53.0°W **Viva la Revolucaion (Long Live the Revolution)**
I10 5 /53.0°W **Mi Mundo de Cabeza:** Cuentos clasicos infantiles (Classic children's tales).

2245 GMT

B01 1 /65.0°W **R.J. TV:** Noticias (News).
I10 14 /53.0°W **Los Grandes de la Historia (The Greats Of History)**

2255 GMT

B01 1 /65.0°W **Jornal Nacional (National Journal):** Noticias (News).

2300 GMT

B01 5 /65.0°W **Guerra, Sombra e Agua Fresca (War, Shade, and Fresh Water**
I01 24 /1.0°W **NBC Nightly News**
I05 24 /24.5°W **UPITN for Latin America**
I06 1 /27.5°W **Gente (People)**
I06 3 /27.5°W **Enciclopedia Britannica (Encyclopedia Britannica)**
I06 5 /27.5°W **Presencia Latina (Latin Presence)**
I07 24 /31.0°W **Mesa de Noticias (News Desk):** Telecomedia (Comedy).
I10 1 /53.0°W **El Tesoro del Saber (The Treasure of Knowledge)**
I10 14 /53.0°W **Este es Mexico (This Is Mexico)**
I10 15 /53.0°W **M.A.S.H.:** Comedy
I10 22 /53.0°W **La Torre 10 (The Bullfight 10)**
I10 5 /53.0°W **Sabias Tu Que... (You Know That...)**
S04 -1 /14.0°W **Segodnya V Mire (Today in the World):** World News.

2320 GMT

B01 1 /65.0°W **NOVELA-Roque Santeiro**

2330 GMT

B01 5 /65.0°W **Oito E Meia (Eight and a Half):** Variedades (Variety).
I01 24 /1.0°W **CBS Evening News**
I06 1 /27.5°W **Baila de Rumba (Dance the Rumba):** Concurso (Contest).
I06 3 /27.5°W **Disco Club:** Pop music videos.
I10 1 /53.0°W **NOVELA-Abandonada (Abandoned)**
I10 14 /53.0°W **Musica y Algo Mas (Music and Something More)**
I10 15 /53.0°W **Cartoon**
I10 22 /53.0°W **60 Minutos (60 Minutes):** Noticias (News)
I10 5 /53.0°W **Mas Alla de la Imagen (Farther from the Image):** Un viaje al mundo del arte (A trip to the world of art).

2355 GMT

I06 5 /27.5°W **Mafalda**

THE AMERICAS

All times are Greenwich Meridian time

SATURDAY

0000 GMT

I01 24 /1.0°W CNN Continues
I06 1 /27.5°W Noticiero 24 Horas: News.
I06 5 /27.5°W Las Noticias de VTV (News From VTV)
I07 24 /31.0°W SPORTS-El Deporte y El Hombre (Man and Sports)
I10 1 /53.0°W NOVELA-Principessa
I10 15 /53.0°W What's Happening
I10 5 /53.0°W Los Estados de Mexico (The States of Mexico)

0005 GMT

B01 5 /65.0°W Jornal da Copa: Boletim sobre o Mundial do Mexico (Mexican news).

0015 GMT

B01 5 /65.0°W Hebe: Musicals, entrevistas e variedades (Music, interviews and variety).

0020 GMT

B01 1 /65.0°W Sexta Super (Super Friday)

0027 GMT

I06 1 /27.5°W El Minuto de Dios (One Minute for God)

0030 GMT

I06 1 /27.5°W Musical
I06 3 /27.5°W Telediario (Teledaily): Noticias (News).
I06 5 /27.5°W Dossier
I10 1 /53.0°W NOVELA-Los Anos Pasan (The Years Pass)
I10 14 /53.0°W NOVELA-Lupita
I10 15 /53.0°W I'm a Big Girl Now: Comedy.
I10 22 /53.0°W Noche de Peliculas (Movies Night)
I10 5 /53.0°W Videomundo (Videoworld)

0100 GMT

I01 24 /1.0°W CBS Evening News: West Coast Feed
I06 1 /27.5°W El Planeta de los Simios (The Planet of the Monkeys)
I06 3 /27.5°W Especial Musical (Special Musical)
I06 5 /27.5°W Baila Conmigo (Dance With Me)
I07 24 /31.0°W Los Especiales de ATC: Pelicula (Movie).
I10 1 /53.0°W NOVELA-Juana Iris
I10 14 /53.0°W Siete Dias (Seven Days): Noticias (News).
I10 15 /53.0°W NBC News
I10 5 /53.0°W La Hazana de Mexico (Mexico's Feat)

0115 GMT

B01 1 /65.0°W Festival Nacional (National Festival)

0130 GMT

I01 24 /1.0°W MacNeil, Lehrer Report
I10 1 /53.0°W Xe Tu, Super Musical: Concurso (Contest).
I10 14 /53.0°W Presas de Sonora
I10 15 /53.0°W That's Incredible

0155 GMT

I10 1 /53.0°W 24 Horas (24 Hours): Noticiarios (News).

0200 GMT

I06 1 /27.5°W Pasaporte al Mundo (Passport to the World)
I06 3 /27.5°W Los Rivales de Sherlock Holmes (The Rivals of Sherlock Holmes)
I06 5 /27.5°W NOVELA-Corazon Indomito (Untamed Heart)
I10 1 /53.0°W Chiquilladasde
I10 14 /53.0°W Las Locuras de Offenback (The Madness of Offenback)
I10 15 /53.0°W Entertainment Tonight
I10 22 /53.0°W Edicion Dos (Second Edition): Noticias (News).
I10 5 /53.0°W SPORTS-Meta 86 (Objective 86)

0215 GMT

B01 5 /65.0°W Jornal da Noite (Night Journal): Noticias (News).

0225 GMT

B01 5 /65.0°W Dinheiro (Money): Economia (Economy).

0230 GMT

B01 5 /65.0°W Sexta-Feira (Friday): Entrevistas (Interviews).
I01 24 /1.0°W CNN Continues
I06 1 /27.5°W Noticiero TV Hoy: News.
I10 1 /53.0°W Cachun, Cachun, Ra, Ra (Boom Boom, Rah Rah): Comedia musical (Musical comedy).
I10 15 /53.0°W San Diego At Large

0255 GMT

I10 22 /53.0°W Cine Nocturno (Nighttime Movie)

0300 GMT

I06 1 /27.5°W Los Impostores (The Imposters)
I06 3 /27.5°W Cine Como en El Cine (Movie Like At The Movies)
I06 5 /27.5°W La Entrevista de Hoy (Today's Interview)
I07 24 /31.0°W Titulares (Titles): Informativo (Report).
I10 1 /53.0°W Mi Secretaria (My Secretary)
I10 14 /53.0°W La Fundacion (The Foundation)
I10 15 /53.0°W The Dukes of Hazzard
I10 5 /53.0°W Alegrias y Pepitorias (Merriment): Comedia (Comedy).

0315 GMT

B01 1 /65.0°W Jornal da Globo (World Journal): Noticias (News).
I06 5 /27.5°W Cine Sin Restricciones (Movie Without Restrictions)

0330 GMT

B01 5 /65.0°W Videoclube (Video Club)
I01 24 /1.0°W NBC Tonight Show starring Johnny Carson
I06 1 /27.5°W Pelicula (Movie)
I07 24 /31.0°W Kenia Sharp Club: Serie (Series).
I10 1 /53.0°W NOVELA-Tu O Nadie (You Or Nobody)
I10 5 /53.0°W Flores de Asfalto (Asphalt Flowers): Musical juvenil (Music for youths).

0345 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).

0350 GMT

B01 1 /65.0°W Sessao Dupla (Double Session)

0355 GMT

I10 1 /53.0°W Advance de 24 Horas (Advance of 24 Hours)

0400 GMT

I10 1 /53.0°W NOVELA-Angelica
I10 14 /53.0°W Pelicula (Movie)
I10 15 /53.0°W Movie
I10 5 /53.0°W Dia a Dia: Noticiario (News).
S04 -1 /14.0°W Vremya (Time): The Moscow Morning News.

0430 GMT

I01 24 /1.0°W CNN Sports Tonite
I06 3 /27.5°W Telediario (Teledaily): Noticias (News).
I10 1 /53.0°W 24 Horas (24 Hours): Noticiario (News).

0500 GMT

I01 24 /1.0°W ABC Nightline
I06 1 /27.5°W Cierre (Close)
I06 5 /27.5°W Despedida
I10 14 /53.0°W Anatomias (Anatomy)
I10 5 /53.0°W La Entrevista de Hoy (Today's Interview)

0515 GMT

I10 5 /53.0°W Cine Mexicano (Mexican Movie)

0530 GMT

I01 24 /1.0°W CNN Headline News
I10 1 /53.0°W En Vivo (Live)

0600 GMT

I01 24 /1.0°W AFRTS Sign Off: With advisories if necessary, followed by CNN commercial feed.
I10 14 /53.0°W El Nuevo a Capa y Espada (The New Cape and Sword)

0700 GMT

I10 14 /53.0°W Ultima Edicion (Last Edition): Noticias (News).

0730 GMT

I10 14 /53.0°W Resumen Simbolos Partios (Partiotic Symbols in Brief)

0940 GMT

B01 1 /65.0°W Telecurso 2 Grau (Telecourse,2nd Level)

0955 GMT

B01 1 /65.0°W Telecorso 1 Grau (Telecourse,1st Level)

1000 GMT

B01 5 /65.0°W : Boa Vontade (Good Will)

1030 GMT

B01 5 /65.0°W O Gordo E O Magro (Laurel and Hardy)

1100 GMT

B01 5 /65.0°W Rincao Brasileiro (Ancient Brazilian): Musica regional (Regional music).
I06 5 /27.5°W Asi Es Mi Tierra (So Is My Earth)

1115 GMT

B01 1 /65.0°W Telecorso 1 Grau (Telecourse,1st Level)

1135 GMT

B01 1 /65.0°W Journal Do Estudante (Student's Journal)

1150 GMT

B01 1 /65.0°W Zero a Seis (Zero to Six)

1200 GMT

B01 5 /65.0°W Sabado Feliz (Lucky Saturday): Infantil (Children's programming).
I06 5 /27.5°W SPORTS-Beisbol Liga Nacional (National League Baseball)
I10 15 /53.0°W Cartoon Special Morning Line Up

1210 GMT

B01 1 /65.0°W Globo Shell Profissoes (Globe Shell Professions)

1230 GMT

B01 1 /65.0°W Brasil,Terra da Gente (Brazil,Land of the People)
I06 1 /27.5°W La Abeja Maya (Maya, the Bee): Dibujos animados (Cartoons).

1300 GMT

B01 1 /65.0°W Balao Magico (The Magic Balloon: Children's programming.
I01 24 /1.0°W AFRTS Sign On: Schedules, advisories and color bars.
I06 1 /27.5°W Estudio 80 (Studio 80): Concurso juvenil (Children's constest).
I10 1 /53.0°W Hoy Mismo (Today In Itself): Noticias y variedades (News and variety).
I10 14 /53.0°W Desde Temprano (Since Early)
I10 5 /53.0°W Actualizacion Docente: Educational.
S04 6 /14.0°W UPITN News from London

1315 GMT

S04 6 /14.0°W Intervision News Unilaterals

1330 GMT

I01 24 /1.0°W CNN Headline News
I06 1 /27.5°W El Gladiador (The Gladiator): Dibjuos animados (Cartoons).
I07 24 /31.0°W La Fe del Hombre (Man's Faith)
I10 22 /53.0°W Teleduc '84

1400 GMT

F01 1 /8.0°W AITV News Paris
I01 24 /1.0°W PBS Washington Week In Review
I06 1 /27.5°W Los Superamigos (Superfriends): Dibujos animados (Cartoon).
I07 24 /31.0°W Sabado Libre (Free Saturday): Infantil (Children's programming).

All times are Greenwich Meridian time

1430 GMT

B01 5 /65.0°W Clube de Bolinha (Bolinha's Club): Show de auditorio (Amateur variety).
I01 24 /1.0°W Navy News This Week
I06 1 /27.5°W El Pajaro Loco (Crazy Bird)

1450 GMT

I10 22 /53.0°W La Naturaleza y El Hombre (Nature and Man)

1500 GMT

I01 24 /1.0°W CNN Continues
I06 1 /27.5°W SPORTS-En Directo (Live)
I06 5 /27.5°W Dimension
I07 24 /31.0°W Que se Vengan los Chicos (Which Children Will Come): Infantil (Children's programming).
I10 14 /53.0°W Sabados del 13 (Saturdays of 13)
I10 5 /53.0°W Forjadores de la Historia (Forgers of History)

1515 GMT

I10 22 /53.0°W Ciudad Del Sol (City of the Sun): Documental (Documentary).

1525 GMT

B01 1 /65.0°W SPORTS-Globo Esporte (World Sports)

1530 GMT

I01 24 /1.0°W CNN Headline News

1540 GMT

I10 22 /53.0°W SPORTS-Deportes Espectaculares (Spectacular Sports)

1545 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).

1600 GMT

B01 1 /65.0°W Hoje (Today)
I01 24 /1.0°W CBS Sports Event
I06 5 /27.5°W Favoritos de Monitor Hipico (Favorites of the Horse Races)
I07 24 /31.0°W Por Siempre Chaplin (Chaplin Forever): Secuencias de peliculas de Chalie Chaplin (Sequence of Charlie Chaplin movies).
I10 5 /53.0°W SPORTS-Deporte Amateur (Amateur Sports)

1630 GMT

I06 1 /27.5°W La Mujer Bionica (Bionic Woman)

1640 GMT

B01 1 /65.0°W MOVIE-Festival Jerry Lewis (Jerry Lewis Festival)

1650 GMT

I10 22 /53.0°W Sabados Gigantes (Big Saturdays): Variedades (Variety).

1700 GMT

I01 24 /1.0°W ABC Wide World of Sports or other major sporting event
I06 3 /27.5°W Dibujos Animados (Cartoons)
I06 5 /27.5°W Momentos (Moments)
I07 24 /31.0°W El Hombre de la Atlantida (The Man of the Atlantis): Serie (Series).
S04 1 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.
S04 6 /14.0°W Vremya (Time): The Moscow Evening News, Sports, Weather.

1730 GMT

I06 1 /27.5°W Especial Musical (Special Musical)

1800 GMT

I06 1 /27.5°W El Tiempo es Oro (Time is Gold): Programa concurso (Game show).
I06 3 /27.5°W Tropical Andino (Tropical Andean)
I06 5 /27.5°W SPORTS-Beisbol de Grandes Ligas (Big League Baseball)
I10 1 /53.0°W Foro Adulto (Adult Forum): Mesa redonda (Round table).

I10 14 /53.0°W Televidente (Televiewers)
I10 15 /53.0°W Sports or Movie
I10 5 /53.0°W XI Festival Internacional Cervantino (XI International Festival Cervantino)

1830 GMT

B01 1 /65.0°W Cassino do Chacrinha (Chacrinha's Casino): Variedades (Variety).
B01 5 /65.0°W SPORTS-Futbol au Vivo (Live Soccer)
I08 24 /34.5°W NBC Sports NY
I10 1 /53.0°W Teatro Alameda Presenta (Alameda Theater Presents)

1900 GMT

I01 24 /1.0°W CBS Collegiate basketball or other major sporting event
I06 1 /27.5°W Telesemana (Teleweek)
I06 3 /27.5°W Historia de la Navegacion (The History of Navigation)
I10 14 /53.0°W Historia de Un Cantar (History of a Singer)
I10 5 /53.0°W Las Cuentas Claras (Clear Accounts): Informacion financiera (Finance information).

1930 GMT

I06 3 /27.5°W Huellas del Pasado (Traces of the Past)

2000 GMT

I06 1 /27.5°W Magnum, P.I.
I06 3 /27.5°W Historia de la Aviacion (The History of Aviation)
I10 1 /53.0°W 24 Horas de la Tarde (24 Hours in the Afternoon): Noticiario (News).
I10 14 /53.0°W Lo Que El Tiempo se Llevo (That Which Time Brings)
I10 5 /53.0°W Semana Laboral (Labor Week)

2030 GMT

I01 19 /1.0°W RTP News from Lisbon, Portugal
I06 3 /27.5°W Manni El Libero
I10 1 /53.0°W 60 Minutos (60 Minutes)
I10 15 /53.0°W SPORTS-Sports Saturday
I10 5 /53.0°W Documental (Documentary)

2040 GMT

I05 24 /24.5°W Visnews London

2045 GMT

I10 5 /53.0°W Partidos Politicos (Political Parties)

2050 GMT

B01 1 /65.0°W Livre Para Voar (Free To Fly)

2100 GMT

B01 5 /65.0°W Na Deira Da Tuia: Musica regional (Regional music).
I06 1 /27.5°W Mision: Imposible (Mission: Impossible)
I06 3 /27.5°W Entretenimiento Musical (Musical Entertainment)
I06 5 /27.5°W SPORTS-Basket Liga Especial (Special League Basketball)
I07 24 /31.0°W Dejalo Ser: Periodistico (Journalism).
I10 14 /53.0°W El Congreso del Trabajo (The Work Convention)
I10 5 /53.0°W SPORTS-Toros (Bullfights)

2130 GMT

I10 1 /53.0°W MOVIE-Teatro Alameda (Park Theater): Pelicula (Movie).
I10 14 /53.0°W Los Descendientes (The Descendents)

2155 GMT

B01 1 /65.0°W Vereda Tropical (Tropical Footpath)

2200 GMT

B01 5 /65.0°W SPORTS-Momento do Esporte (A Moment in Sports)
I05 24 /24.5°W CBS International: News unilaterals to South America.
I06 1 /27.5°W Pareja Audaz (Daring Pair)
I06 3 /27.5°W La Matine del 7 (The Matinee of 7)
I07 24 /31.0°W ATC Rally Turismo (ATC Tourist Rally)
I08 24 /34.5°W Globo TV NY: News feeds from NY to Rio de Janeiro.
I10 14 /53.0°W Pelicula (Movie)
I10 15 /53.0°W Wonder Woman
I10 5 /53.0°W SPORTS-Beisbol (Baseball)

2215 GMT

B01 5 /65.0°W Jornal de San Paulo: Noticias locais (Local news).

2230 GMT

B01 5 /65.0°W Jornal Bandeirantes: Noticias nacaionais e internacioanais (National and international news).
I10 14 /53.0°W Mexico Desconocido (The Unknown Mexico)

2245 GMT

B01 1 /65.0°W R.J. TV: Noticias (News).

2300 GMT

B01 1 /65.0°W Jornal Nacional (National Journal): Noticias (News).
B01 5 /65.0°W Sucessos do Radio (Radio Hits): Video clips.
I06 1 /27.5°W Gaceta (Gazette)
I06 5 /27.5°W Nydia Caro, Noche de Gala en New York (Nydia Caro, Night of Gala in New York)
I07 24 /31.0°W Historias de la Argentina Secreta (Stories of the Secret Argentina): Documental (Documentary).
I10 14 /53.0°W Nostalgia
I10 15 /53.0°W Star Trek: Space adventure.

2325 GMT

I10 22 /53.0°W Hasta Manana (Until Tomorrow): Children's programming.

2330 GMT

B01 1 /65.0°W NOVELA-Partido Alto (High Stakes)
I06 3 /27.5°W El Pais en Que Vivimos (The Country Where We Live)
I10 1 /53.0°W Estrellas de los 80's (Stars of the 80's)
I10 22 /53.0°W Teletrece (Telethirteen)

2355 GMT

I06 1 /27.5°W Boletin de Consumidor (Consumers Bulletin)

Indian & Pacific Ocean Regions

INTELSAT IVA

Satellite	Location	Tr.#	Tr. Beam	Tr. Type	Polarization/ Center Frequency	Service Description/Country	Audio Info	Estimated Beam-Edge EIRP
I-IVA—F06	174.0 E	24	Global Beam	Full	RH-4175	**International News and Sports Feeds**	—	17 dBW
I-IVA—F03	179.0 E	6	Global Beam	Half	RH-3815	**CNN and NBC**—Los Angeles	5.35 MHz	—
I-IVA—F03	179.0 E	7	Global Beam	Half	RH-3835	**CBS and ABC**—Los Angeles	5.70 and 5.95 MHz	—
I-IVA—F03	179.0 E	10	West Hemi	Full	RH-3905	**Australian Broadcasting Co.**—ABQ-2, Brisbane	6.8 MHz	25 dBW
I-IVA—F03	179.0 E	14	West Hemi	Full	RH-3975	**Australian Broadcasting Co.**—ABW-2, Perth	6.8 MHz	25 dBW
I-IVA—F03	179.0 E	18	West Hemi	Full	RH-4015	**JISO**—Japan	—	—
I-IVA—F03	179.0 E	23	West Hemi	Full	RH-4155	**American Forces Radio and Television Service**—Provides live American programming to servicemen abroad	6.8 MHz	26 dBW
I-IVA—F03	179.0 E	24	Global Beam	Half/Full	RH-4175	**International News and Sports Feeds**	—	—

INTELSAT V

I-V—F01	57.0 E	5	East Hemi	Full	RH-3885	**RTM2 (Warna 2) TV**—Kuala Lumpur, Malaysia	—	—
I-V—F01	57.0 E	16	East Hemi	Quarter	RH-3995	**Thailand**—Non-video lease	—	—
I-V—F01	57.0 E	20	Global Beam	Full	RH-4095	**Oman Television**	SCPC	19 dBW
I-V—F07	60.0 E	24	Global Beam	Half/Full	RH-4177.5	**International News and Sports Feeds**	6.6 MHz S/C	—
I-V—F05	63.0 E	24	Global Beam	Half/Full	RH-4177.5	**Occasional Video**—Regular news feeds between Europe and Australia	6.6 MHz S/C	—

GORIZONT

GORIZONT 9	53.0 E	– 1	Spot Beam	Full	RH-3675	**I Programma**—Soviet Television, Moscow	7.0 MHz Audio S/C	—
GORIZONT 9	53.0 E	9	North Hemi	Full	RH-3875	**II Programma**—Soviet Television, Moscow	Sound-in-sync	—
GORIZONT 8	90.0 E	– 1	Spot Beam	Full	RH-3675	**II Programma**—Soviet Television, Siberian edition	7.0 MHz Audio S/C	—
GORIZONT 8	90.0 E	9	North Hemi	Full	RH-3875	**I Programma**—Soviet Television, Moscow	Sound-in-sync	—
GORIZONT 6	140.0 E	– 1	Spot Beam	Full	RH-3675	**II Programma**—Soviet Television, Moscow	7.0 MHz Audio S/C	—
GORIZONT 6	140.0 E	9	North Hemi	Full	RH-3875	**I Programma**—Soviet Television, Moscow	Sound-in-sync	—

RADUGA

RADUGA	84.0 E	-1	Spot Beam	Full	RH-3675	**II Programma**—Soviet Television, Moscow	7.5 MHz S/C	—
RADUGA	84.0 E	9	North Hemi	Full	RH-3875	**I Programma**—Soviet Television, Moscow	Sound-in-sync	—

PALAPA B2

PALAPA B01	108.0E	8	Spot Beam	Full	V-3860	**TBS 7 TV**—Bangkok, Thailand	SCPC	—
PALAPA B01	108.0E	10	Spot Beam	Full	V-3900	**RTM 1 (Warna 1) TV**—Kuala Lumpur, Malaysia	6.5 MHz S/C	—
PALAPA B01	108.0E	12	Spot Beam	Full	V-3940	**Army Channel 5 TV**—Bangkok, Thailand	SCPC	—
PALAPA B01	108.0E	15	Spot Beam	Full	H-4000	**TVI-TV**—Indonesia	6.5 MHz S/C	—

YURI

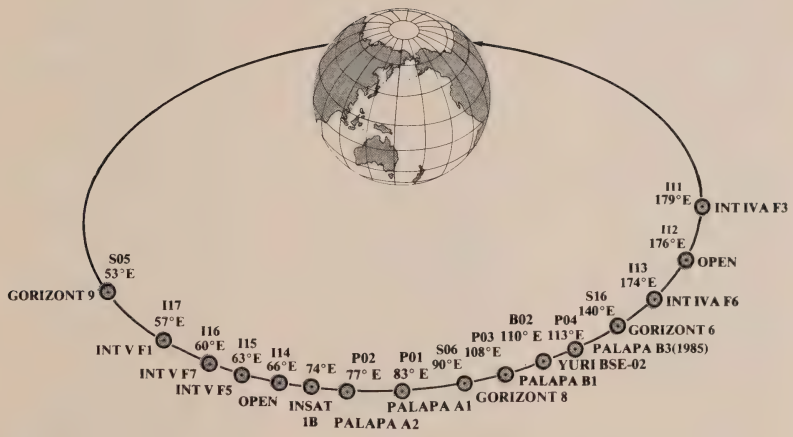
YURI BSE-02	110.0 E	1	Yuri Spot Beam	Full	LP-11.71398	**NHK-TV Tokyo**—PCM digital transmissions	—	—

INSAT

INSAT 1-B	74.0 E	S*	Spot Beam	Full	LP-2575	**TV India**	—	—
INSAT 1-B	74.0 E	S*	Spot Beam	Full	LP-2615	**TV India**	—	—

RH = right-hand circular polarization **LH** = left-hand circular polarization **H** = horizontal polarization * S-band transponders between 2.50 – 2.69 GHz

Indian & Pacific Ocean Regions



I = INTELSAT (INT)
S = STATSIONAR
P = PALAPA

ID. NO.	SATELLITE	TR. #	BEAM	SERVICE
I17	Int. V F1	20	Global	TV Oman
I16	Int. V F7	24	Global	International News Feeds
P02	Palapa A02	5	Spot Beam	RPN 9 TV, Manila, the Philippines
P02	Palapa A02	9	Spot Beam	Warner-TV 5, Kuala Lumpur, Malaysia
I13	Int. IVA F6	24	Global	International News Feeds
I11	Int. IVA F3	9	West Hemi	ABQ Channel 2, Brisbane (ABC)
I11	Int. IVA F3	16	West Hemi	ABW Channel 2, Perth (ABC)
I11	Int. IVA F3	22	West Hemi	AFRTS (American Forces Radio and Television Service)
S06	Gorizont 8	-1	Spot	II Programma, Moscow
S06	Gorizont 8	9	North Hemi	I Programma, Moscow
S07	Gorizont 6	-1	Spot	II Programma, Moscow
S07	Gorizont 6	9	North Hemi	I Programma, Moscow

*Ku-band transponder at 11.71398 GHz

The following international satellite programming guide represents a typical satellite TV schedule for TVRO operators in India, Australia, the Pacific Islands, and the Far East. The Australian Broadcasting Commission (ABC) TV originates from Brisbane and Perth, providing east and west coast editions of ABC programming by Intelsat. The American Forces Radio and Television Service (AFRTS) provides American TV programs to U.S. military personnel stationed in Korea and in the Philippines.

Also contained in our Pacific Region schedule are listings for the Russian I and II Programma TV services carried on Soviet Indian and Pacific Ocean region satellites. Additional program schedules for other world-class satellite services will be added in the months ahead.

PACIFIC OCEAN REGION

All times are Greenwich Meridian time

SUNDAY

0000 GMT

I11 14 /179.0°E SPORTS-Rugby World
I11 22 /179.0°E SPORTS-ESPN Sports
I11 9 /179.0°E The Orphans: "G".
S06 9 /90.0°E Sluzhy Sovetskomu Soyuzu (I Serve the Soviet Union)

0025 GMT

I11 9 /179.0°E Alexander Bunyip's Billabong

0030 GMT

I11 9 /179.0°E Kimba the White Lion: "G"
S07 9 /140.0°E Musical'Nyj Kiosk (Musical Kiosk)

0055 GMT

I11 9 /179.0°E Dr. Snuggles

0100 GMT

I11 14 /179.0°E Playmates: Children's programming.
I11 9 /179.0°E Divine Service: Sunday church services.
S06 9 /90.0°E Zdorov'e (Health)

0145 GMT

S06 9 /90.0°E Utrennya Ya Pochta (The Morning Mail)

0200 GMT

I11 14 /179.0°E The Orphans: "G".
I11 9 /179.0°E Countrywide

0215 GMT

S06 9 /90.0°E Kinozhurnal (Film Magazine)

0225 GMT

I11 14 /179.0°E Alexander Bunyip's Billabong

0230 GMT

I11 14 /179.0°E Kimba the White Lion: "G".
I11 9 /179.0°E Four Corners
S06 9 /90.0°E Sel'Skij Chas (Village Hour)

0255 GMT

I11 14 /179.0°E Dr. Snuggles

0300 GMT

I11 14 /179.0°E Divine Service: Sunday church services.

0320 GMT

I11 9 /179.0°E Movie Matinee

0330 GMT

I11 22 /179.0°E SPORTS-CNN Sports Tonite
S06 9 /90.0°E Musical'Nyj Kiosk (Musical Kiosk)
S07 9 /140.0°E Klub Putshestvennikov (Traveler's Club)

0400 GMT

I11 14 /179.0°E Countrywide
I11 22 /179.0°E CNN Week in Japan

0430 GMT

I11 14 /179.0°E Four Corners
I11 22 /179.0°E CNN Headline News

0500 GMT

I11 22 /179.0°E AFRTS Sign Off or CNN Headline News
I11 9 /179.0°E Chariots in the Sun
S07 9 /140.0°E Meahdunarodhaya Panorama (International Panorama)

0520 GMT

I11 14 /179.0°E Movie Matinee

0530 GMT

I11 9 /179.0°E SPORTS-Hockey

0630 GMT

S06 9 /90.0°E Klub Putshestvennikov (Traveler's Club)

0700 GMT

I11 14 /179.0°E Chariots in the Sun
I11 9 /179.0°E SPORTS-The Winners: Replay of the highlights from three VFL matches.
S07 -1 /140.0°E Spokojoj Nochi, Malyshi (Good Night, Kids)

0730 GMT

I11 14 /179.0°E SPORTS-Hockey

0800 GMT

I11 9 /179.0°E Countdown: Pop show.
S06 9 /90.0°E Meahdunarodhaya Panorama (International Panorama)
S07 -1 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S07 9 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

0835 GMT

S07 -1 /140.0°E Fil'm (Film)
S07 9 /140.0°E Futbol'Noe Obozrenie (Soccer Review)

0900 GMT

I11 14 /179.0°E SPORTS-The Winners: Replay of the highlights from three VFL matches.
I11 9 /179.0°E Weekend National: News, sports and weather.

0930 GMT

I11 9 /179.0°E Vietnam: "G".

1000 GMT

I11 14 /179.0°E Countdown: Pop show.
S06 -1 /90.0°E Spokojoj Nochi, Malyshi (Good Night, Kids)

1025 GMT

I11 9 /179.0°E Strangers and Brothers: "PGR".

1100 GMT

I11 14 /179.0°E Weekend National: News, sports and weather.
I17 20 /57.0°E Royal Anthem-Holy Koran
S06 -1 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S06 9 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1120 GMT

I11 9 /179.0°E Africa: "G".

1130 GMT

I11 14 /179.0°E Vietnam: "G".
I17 20 /57.0°E Cartoon: Children's programming.

1135 GMT

S06 -1 /90.0°E Fil'm (Film)
S06 9 /90.0°E Futbol'Noe Obozrenie (Soccer Review)

1220 GMT

I11 9 /179.0°E Qunatum

1225 GMT

I11 14 /179.0°E Strangers and Brothers: "PGR".

1245 GMT

I17 20 /57.0°E Educational Program

1250 GMT

I11 9 /179.0°E World of Music

1300 GMT

I11 22 /179.0°E AFRTS Sign On: Schedules, advisories and color bars.

1320 GMT

I11 14 /179.0°E Africa: "G".

1330 GMT

I11 22 /179.0°E CNN Headline News

1340 GMT

I11 9 /179.0°E Close
I17 20 /57.0°E Arabic Serial

1400 GMT

I11 22 /179.0°E CBS Sunday Morning

1420 GMT

I11 14 /179.0°E Qunatum

1430 GMT

I17 20 /57.0°E Cultural Program

1450 GMT

I11 14 /179.0°E World of Music

1500 GMT

I17 20 /57.0°E News: Local.

1530 GMT

I11 22 /179.0°E ABC This Week With David Brinkley: U.S. current affairs program with interviews with government officials.
I17 20 /57.0°E Local Program

1540 GMT

I11 14 /179.0°E Close

1600 GMT

I17 20 /57.0°E Religious Program

1630 GMT

I11 22 /179.0°E CNN Headline News

1700 GMT

I11 22 /179.0°E SPORTS-Major Sports Event
I17 20 /57.0°E News: Arabic.

1730 GMT

I17 20 /57.0°E Arabic Serial

1830 GMT

I17 20 /57.0°E News: English.

1900 GMT

I17 20 /57.0°E Program Review
S07 -1 /140.0°E Na Zaryadku Stanovis' (Stand up for Exercises)
S07 9 /140.0°E Vremya (Time): The Moscow Morning News.

1905 GMT

I17 20 /57.0°E English Film

1915 GMT

S07 -1 /140.0°E Fil'm (Film)

1935 GMT

S07 9 /140.0°E Futbol'Noe Obozrenie (Soccer Review)

2000 GMT

I11 22 /179.0°E SPORTS-Major Sports Event

2005 GMT

S07 9 /140.0°E Fil'm (Film)

2030 GMT

I17 20 /57.0°E News in Brief-Holy Koran

2045 GMT

I17 20 /57.0°E Royal Anthem

2200 GMT

I11 9 /179.0°E Sesame Street: Children's programming.
S06 -1 /90.0°E Na Zaryadku Stanovis' (Stand up for Exercises)
S06 9 /90.0°E Vremya (Time): The Moscow Morning News.

2215 GMT

S06 -1 /90.0°E Fil'm (Film)

2235 GMT

S06 9 /90.0°E Futbol'Noe Obozrenie (Soccer Review)

2300 GMT

I11 22 /179.0°E CNN Headline News
I11 9 /179.0°E The Voyages of Dr. Dolittle

2305 GMT

S06 9 /90.0°E Fil'm (Film)

2330 GMT

I11 9 /179.0°E Play School: Children's programming.

MONDAY

0000 GMT

I11 14 /179.0°E Sesame Street: Children's programming.
I11 22 /179.0°E CNN Continues
I11 9 /179.0°E Hunter

0020 GMT

I11 9 /179.0°E Families

0040 GMT

I11 9 /179.0°E Watch

0100 GMT

I11 14 /179.0°E The Voyages of Dr. Dolittle
I11 22 /179.0°E CNN Headline News

PACIFIC OCEAN REGION

All times are Greenwich Meridian time

I11 9 /179.0°E The Magic Bag

0120 GMT

I11 9 /179.0°E For the Juniors

0130 GMT

I11 14 /179.0°E Play School: Children's programming.

0140 GMT

I11 9 /179.0°E Infinity LTD.

0150 GMT

S07 9 /140.0°E Fil'm (Film)

0200 GMT

I11 14 /179.0°E Hunter
I11 9 /179.0°E Shakespeare in Perspective

0220 GMT

I11 14 /179.0°E Families

0230 GMT

I11 9 /179.0°E Six of the Best

0240 GMT

I11 14 /179.0°E Watch

0300 GMT

I11 14 /179.0°E The Magic Bag
I11 22 /179.0°E SPORTS-CNN Sports Tonite
I11 9 /179.0°E Kontakte

0320 GMT

I11 14 /179.0°E For the Juniors

0325 GMT

I11 9 /179.0°E Secondary Media

0330 GMT

I11 22 /179.0°E AFRTS Sign Off: With advisories if necessary, followed by CNN commercial feed.

0340 GMT

I11 14 /179.0°E Infinity LTD.

0400 GMT

I11 14 /179.0°E Shakespeare in Perspective

0430 GMT

I11 14 /179.0°E Six of the Best

0450 GMT

S06 9 /90.0°E Fil'm (Film)

0500 GMT

I11 14 /179.0°E Kontakte
I11 9 /179.0°E Sesame Street: Children's programming.

0525 GMT

I11 14 /179.0°E Secondary Media

0530 GMT

S07 -1 /140.0°E Ritmicheskaya Gimnastika (Rhythmic Gymnastics)

0545 GMT

S07 9 /140.0°E Segodnya V Mire (Today in the World): World News.

0555 GMT

I11 9 /179.0°E Rubarb

0600 GMT

I11 9 /179.0°E Play School: Children's programming.
S07 -1 /140.0°E Sluzhy Sovetskomu Soyuzu' (I Serve the Soviet Union)

0630 GMT

I11 9 /179.0°E Swallows and Amazons Forever: "G".

0700 GMT

I11 14 /179.0°E Sesame Street: Children's programming.
I11 9 /179.0°E Bang Goes The Budgie: Comical and informative show.
S07 -1 /140.0°E Spokojnoj Nochi, Malyshi (Good Night, Kids)

0725 GMT

I11 9 /179.0°E Dangermouse: "G".

0730 GMT

I11 9 /179.0°E Battle of the Planets

0755 GMT

I11 14 /179.0°E Rubarb
I11 9 /179.0°E Come and Get It

0800 GMT

I11 14 /179.0°E Play School: Children's programming.
I11 9 /179.0°E News Free Zone: Escapist fun and comedy.
S07 -1 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S07 9 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

0830 GMT

I11 14 /179.0°E Swallows and Amazons Forever: "G".
I11 9 /179.0°E ABC National: News.
S06 -1 /90.0°E Ritmicheskaya Gimnastika (Rhythmic Gymnastics)

0835 GMT

S07 -1 /140.0°E Fil'm (Film)

0845 GMT

S06 9 /90.0°E Segodnya V Mire (Today in the World): World News.

0900 GMT

I11 14 /179.0°E Bang Goes The Budgie: Comical and informative show.
S06 -1 /90.0°E Sluzhy Sovetskomu Soyuzu' (I Serve the Soviet Union)

0925 GMT

I11 14 /179.0°E Dangermouse: "G".

0930 GMT

I11 14 /179.0°E Battle of the Planets
I11 9 /179.0°E Just Good Friends: "PGR".

0955 GMT

I11 14 /179.0°E Come and Get It

1000 GMT

I11 14 /179.0°E News Free Zone: Escapist fun and comedy.
I11 9 /179.0°E Yes Minister: "PGR".
S06 -1 /90.0°E Spokojnoj Nochi, Malyshi (Good Night, Kids)

1030 GMT

I11 14 /179.0°E ABC National: News.

1035 GMT

I11 9 /179.0°E Four Corners: Current affairs program.

1100 GMT

I17 20 /57.0°E Royal Anthem-Holy Koran: Religious talk.
S06 -1 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S06 9 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1110 GMT

I11 14 /179.0°E Just Good Friends: "PGR".
I17 20 /57.0°E Cartoon: Children's programming.

1130 GMT

I11 9 /179.0°E Clive James in London

1135 GMT

S06 -1 /90.0°E Fil'm (Film)

1200 GMT

I11 14 /179.0°E Yes Minister: "PGR".
I17 20 /57.0°E Educational Program

1230 GMT

I11 9 /179.0°E A New World
I17 20 /57.0°E Children's Program: English.

1235 GMT

I11 14 /179.0°E Four Corners: Current affairs program.

1300 GMT

I11 22 /179.0°E Sign On
I11 9 /179.0°E Burrows Collection
I17 20 /57.0°E Children's Program: Arabic.

1330 GMT

I11 14 /179.0°E Clive James in London
I11 22 /179.0°E ABC World News AM

1340 GMT

I17 20 /57.0°E Arabic Serial

1400 GMT

I11 22 /179.0°E NBC Today Show
S07 9 /140.0°E Segodnya V Mire (Today in the World): World News.

1405 GMT

I11 9 /179.0°E Close

1430 GMT

I11 14 /179.0°E A New World
I17 20 /57.0°E Cultural Program

1500 GMT

I11 14 /179.0°E Burrows Collection
I17 20 /57.0°E News: Local.

1520 GMT

I17 20 /57.0°E Local Program

1600 GMT

I11 22 /179.0°E CNN Headline News

1605 GMT

I11 14 /179.0°E Close

1615 GMT

I17 20 /57.0°E English Serial

1700 GMT

I11 22 /179.0°E CNN Take Two: Hour 2.
I17 20 /57.0°E News: Arabic.
S06 9 /90.0°E Segodnya V Mire (Today in the World): World News.

1800 GMT

I11 22 /179.0°E CNN Headline News

1830 GMT

I11 22 /179.0°E CBS 60 Minutes
I17 20 /57.0°E News: English.

1900 GMT

I17 20 /57.0°E Program Review-Arabic Film
S07 -1 /140.0°E Na Zaryadku Stanovis' (Stand up for Exercises)
S07 9 /140.0°E Vremya (Time): The Moscow Morning News.

1915 GMT

S07 -1 /140.0°E Dokumental'nyj Fil'm (Documentary Film)

1930 GMT

I11 22 /179.0°E Meet the Press

2000 GMT

I11 22 /179.0°E Face the Nation
I13 24 /174.0°E UPITN News from Washington DC to NHK Japan

2030 GMT

I11 22 /179.0°E CNN Headline News
I16 24 /60.0°E Visnews London for Asia and Pacific
I17 20 /57.0°E News in Brief-Holy Koran

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

I11 22 /179.0°E CNN Take Two: Hour 1.
I13 24 /174.0°E UPITN News from NY to Pacific

2130 GMT

I16 24 /60.0°E Visnews London

2200 GMT

I11 22 /179.0°E AFRTS Advisory Block: Schedules, advisories and color bars.
I11 9 /179.0°E Sesame Street: Children's programming.
S06 -1 /90.0°E Na Zaryadku Stanovis' (Stand up for Exercises
S06 9 /90.0°E Vremya (Time): The Moscow Morning News.
S07 -1 /140.0°E Shakhmatnaya Shkola (Chess School)

2215 GMT

S06 -1 /90.0°E Dokumental'nyj Fil'm (Documentary Film)

PACIFIC OCEAN REGION

All times are Greenwich Meridian time

2230 GMT

I11 22 /179.0°E ABC World News Tonight

2300 GMT

I11 22 /179.0°E NBC Nightly News
I11 9 /179.0°E The Voyages of Dr. Dolittle

2330 GMT

I11 22 /179.0°E CBS Evening News
I11 9 /179.0°E Play School: Children's programming.

TUESDAY

0000 GMT

I11 14 /179.0°E Sesame Street: Children's programming.
I11 22 /179.0°E CNN Continues
I11 9 /179.0°E Behind the News

0015 GMT

S07 -1 /140.0°E Frantsyzskij Yazyk (French Language)

0020 GMT

I11 9 /179.0°E For the Juniors

0040 GMT

I11 9 /179.0°E Families of the World

0100 GMT

I11 14 /179.0°E The Voyages of Dr. Dolittle
I11 22 /179.0°E MacNeil, Lehrer Report
I11 9 /179.0°E For the Juniors
S06 -1 /90.0°E Shakhmatnaya Shkola (Chess School)

0120 GMT

I11 9 /179.0°E The Media

0130 GMT

I11 14 /179.0°E Play School: Children's programming.

0140 GMT

I11 9 /179.0°E Families

0150 GMT

S07 9 /140.0°E Dokumntal'nye Fil'my (Documentary Film)

0200 GMT

I11 14 /179.0°E Behind the News
I11 22 /179.0°E CNN Headline News
I11 9 /179.0°E A New World

0220 GMT

I11 14 /179.0°E For the Juniors

0230 GMT

I11 9 /179.0°E Open File

0240 GMT

I11 14 /179.0°E Families of the World

0300 GMT

I11 14 /179.0°E For the Juniors
I11 22 /179.0°E CNN Headline News
I11 9 /179.0°E Ensemble

0315 GMT

S06 -1 /90.0°E Frantsyzskij Yazyk (French Language)

0320 GMT

I11 14 /179.0°E The Media

0325 GMT

I11 9 /179.0°E World Cultures and Youth

0330 GMT

I11 22 /179.0°E NBC Tonight Show starring Johnny Carson

0340 GMT

I11 14 /179.0°E Families

0400 GMT

I11 14 /179.0°E A New World

0430 GMT

I11 14 /179.0°E Open File
I11 22 /179.0°E CNN Sports Tonite

0450 GMT

S06 9 /90.0°E Dokumntal'nye Fil'my (Documentary Film)

0500 GMT

I11 14 /179.0°E Ensemble
I11 22 /179.0°E ABC Nightline
I11 9 /179.0°E Sesame Street: Children's programming.

0525 GMT

I11 14 /179.0°E World Cultures and Youth

0530 GMT

I11 22 /179.0°E CNN Headline News

0545 GMT

S07 9 /140.0°E Segnodnya V Mire (Today in the World): World News.

0555 GMT

I11 9 /179.0°E Rubarb

0600 GMT

I11 22 /179.0°E AFRTS Sign Off or CNN Headline News
I11 9 /179.0°E Play School: Children's programming.

0630 GMT

I11 9 /179.0°E Swallows and Amazons Forever: "G".

0700 GMT

I11 14 /179.0°E Sesame Street: Children's programming.
I11 9 /179.0°E Out There: Program designed to inform school leavers of the skills required in the transition to the outside world.
S07 -1 /140.0°E Spokojnoj Nochi, Malyshi (Good Night, Kids)

0725 GMT

I11 9 /179.0°E Dangermouse: "G".

0730 GMT

I11 9 /179.0°E Battle of the Planets: "G".

0755 GMT

I11 14 /179.0°E Rubarb
I11 9 /179.0°E Come and Get It

0800 GMT

I11 14 /179.0°E Play School: Children's programming.
I11 9 /179.0°E News Free Zone
S07 -1 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S07 9 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

0830 GMT

I11 14 /179.0°E Swallows and Amazons Forever: "G".
I11 9 /179.0°E ABC National: News.

0835 GMT

S07 -1 /140.0°E Fil'm (Film)

0845 GMT

S06 9 /90.0°E Segnodnya V Mire (Today in the World): World News.

0900 GMT

I11 14 /179.0°E Out There: Program designed to inform school leavers of the skills required in the transition to the outside world.

0925 GMT

I11 14 /179.0°E Dangermouse: "G".

0930 GMT

I11 14 /179.0°E Battle of the Planets: "G".
I11 9 /179.0°E A Big Country

0955 GMT

I11 14 /179.0°E Come and Get It

1000 GMT

I11 14 /179.0°E News Free Zone
I11 9 /179.0°E Qunatum
S06 -1 /90.0°E Spokojnoj Nochi, Malyshi (Good Night, Kids)

1030 GMT

I11 14 /179.0°E ABC National: News.

1035 GMT

I11 9 /179.0°E One Summer Again

1100 GMT

I17 20 /57.0°E Royal Anthem-Holy Koran: Religious talk.
S06 -1 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S06 9 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1125 GMT

I17 20 /57.0°E Cartoon: Children's programming.

1130 GMT

I11 14 /179.0°E A Big Country
I11 9 /179.0°E The Carleton-Walsh Report: Mid-evening news and current affairs program.

1135 GMT

S06 -1 /90.0°E Fil'm (Film)

1200 GMT

I11 14 /179.0°E Qunatum
I11 9 /179.0°E Rock Arena
I17 20 /57.0°E Educational Program

1230 GMT

I17 20 /57.0°E Children's Program: English.

1235 GMT

I11 14 /179.0°E One Summer Again

1300 GMT

I11 22 /179.0°E Sign On
I17 20 /57.0°E Open Seasame: Children's Program in Arabic.

1305 GMT

I11 9 /179.0°E The Young Ones

1330 GMT

I11 14 /179.0°E The Carleton-Walsh Report: Mid-evening news and current affairs program.
I11 22 /179.0°E ABC World News AM

1340 GMT

I11 9 /179.0°E Close
I17 20 /57.0°E Arabic Serial

1400 GMT

I11 14 /179.0°E Rock Arena
I11 22 /179.0°E NBC Today Show
S07 9 /140.0°E Segodnya V Mire (Today in the World): World News.

1430 GMT

I17 20 /57.0°E Cultural Program

1500 GMT

I17 20 /57.0°E News: Local.

1505 GMT

I11 14 /179.0°E The Young Ones

1520 GMT

I17 20 /57.0°E Local Program

1540 GMT

I11 14 /179.0°E Close

1550 GMT

I17 20 /57.0°E Cultural Program

1600 GMT

I11 22 /179.0°E CNN Headline News

1615 GMT

I17 20 /57.0°E English Serial

1630 GMT

I11 22 /179.0°E SPORTS-ESPN Sportscenter

1700 GMT

I11 22 /179.0°E CNN Take Two: Hour 2.
I17 20 /57.0°E News: Arabic.
S06 9 /90.0°E Segodnya V Mire (Today in the World): World News.

1730 GMT

I17 20 /57.0°E Arabic Serial

1800 GMT

I11 22 /179.0°E CNN Headline News

1830 GMT

I11 22 /179.0°E CNN Continues
I17 20 /57.0°E News: English.

1900 GMT

I17 20 /57.0°E Program Review-Local Program
S07 -1 /140.0°E Na Zaryadku Stanovis' (Stand up for Exercises)

All times are Greenwich Meridian time

S07 9 /140.0°E Vremya (Time): The Moscow Morning News.

1930 GMT

I11 22 /179.0°E SPORTS-CNN Continues

2000 GMT

I13 24 /174.0°E UPITN News from Washington DC to NHK Japan

2030 GMT

I11 22 /179.0°E CNN Headline News
I16 24 /60.0°E Visnews London for Asia and Pacific
I17 20 /57.0°E News in Brief-Holy Koran

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

I11 22 /179.0°E CNN Take Two: Hour 1.
I13 24 /174.0°E UPITN News from NY to Pacific

2130 GMT

I16 24 /60.0°E Visnews London

2200 GMT

I11 22 /179.0°E AFRTS Advisory Block: Schedules, advisories and color bars.
I11 9 /179.0°E Sesame Street: Children's programming.
S06 -1 /90.0°E Na Zaryadku Stanovis' (Stand up for Exercises)
S06 9 /90.0°E Vremya (Time): The Moscow Morning News.

2230 GMT

I11 22 /179.0°E ABC World News Tonight

2300 GMT

I11 22 /179.0°E NBC Nightly News
I11 9 /179.0°E The Voyages of Dr. Dolittle

2330 GMT

I11 22 /179.0°E CBS Evening News
I11 9 /179.0°E Play School: Children's programming.

WEDNESDAY

0000 GMT

I11 14 /179.0°E Sesame Street: Children's programming.
I11 22 /179.0°E CNN Continues
I11 9 /179.0°E For the Juniors

0015 GMT

I11 9 /179.0°E Look at a Book

0020 GMT

I11 9 /179.0°E Computers in Action

0040 GMT

I11 9 /179.0°E The Media

0100 GMT

I11 22 /170.0°E CBS News West-Coast Edition
I11 14 /179.0°E The Voyages of Dr. Dolittle
I11 9 /179.0°E Hunter

0120 GMT

I11 9 /179.0°E Flip, Slide, Turn

0130 GMT

I11 14 /179.0°E Play School: Children's programming.
I11 22 /179.0°E MacNeil, Lehrer Report

0140 GMT

I11 9 /179.0°E Lower Primary Science

0150 GMT

S07 9 /140.0°E Dokumental'Nye Fil'my (Documentary Film)

0200 GMT

I11 14 /179.0°E For the Juniors
I11 9 /179.0°E Out There

0215 GMT

I11 14 /179.0°E Look at a Book

0220 GMT

I11 14 /179.0°E Computers in Action

0230 GMT

I11 22 /179.0°E CNN Continues
I11 9 /179.0°E Four Corners

0240 GMT

I11 14 /179.0°E The Media

0300 GMT

I11 14 /179.0°E Hunter

0320 GMT

I11 14 /179.0°E Flip, Slide, Turn

0325 GMT

I11 9 /179.0°E The Whys and Wherefores

0330 GMT

I11 22 /179.0°E NBC Tonight Show starring Johnny Carson

0335 GMT

I11 9 /179.0°E Behind the News

0340 GMT

I11 14 /179.0°E Lower Primary Science

0400 GMT

I11 14 /179.0°E Out There

0430 GMT

I11 14 /179.0°E Four Corners
I11 22 /179.0°E CNN Sports Tonite

0450 GMT

S06 9 /90.0°E Dokumental'Nye Fil'my (Documentary Film)

0500 GMT

I11 22 /179.0°E ABC Nightline
I11 9 /179.0°E Sesame Street: Children's programming.

0525 GMT

I11 14 /179.0°E The Whys and Wherefores

0530 GMT

I11 22 /179.0°E CNN Headline News

0535 GMT

I11 14 /179.0°E Behind the News

0545 GMT

S07 9 /140.0°E Segodnya V Mire (Today in the World): World News.

0555 GMT

I11 9 /179.0°E Rubarb

0600 GMT

I11 22 /179.0°E AFRTS Sign Off: With advisories if necessary, followed by CNN commerical feed.
I11 9 /179.0°E Play School: Children's programming.

0630 GMT

I11 9 /179.0°E Swallows and Amazons Forever: "G".

0700 GMT

I11 14 /179.0°E Sesame Street: Children's programming.
I11 9 /179.0°E Earth Watch
S07 -1 /140.0°E Spokojoj Nochi, Malyshi (Good Night, Kids)

0725 GMT

I11 9 /179.0°E Dangermouse: "G".

0730 GMT

I11 9 /179.0°E Battle of the Planets: "G".

0755 GMT

I11 14 /179.0°E Rubarb
I11 9 /179.0°E Come and Get It

0800 GMT

I11 14 /179.0°E Play School: Children's programming.
I11 9 /179.0°E News Free Zone
S07 -1 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S07 9 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

0830 GMT

I11 14 /179.0°E Swallows and Amazons Forever: "G".
I11 9 /179.0°E ABC National: News.

0845 GMT

S06 9 /90.0°E Segodnya V Mire (Today in the World): World News.

0900 GMT

I11 14 /179.0°E Earth Watch

0925 GMT

I11 14 /179.0°E Dangermouse

0930 GMT

I11 14 /179.0°E Battle of the Planets: "G"
I11 9 /179.0°E The Investigators

0955 GMT

I11 14 /179.0°E Come and Get It

1000 GMT

I11 14 /179.0°E News Free Zone
I11 9 /179.0°E Your Life In Their Hands: "G".
S06 -1 /90.0°E Spokojoj Nochi, Malyshi (Good Night, Kids)

1030 GMT

I11 14 /179.0°E ABC National: News.

1035 GMT

I11 9 /179.0°E The Fainthearted Feminist: "PGR".

1100 GMT

I17 20 /57.0°E Royal Anthem-Holy Koran: Religious talk.
S06 -1 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S06 9 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1105 GMT

I11 9 /179.0°E Countrywide: Rural affairs.

1130 GMT

I11 14 /179.0°E The Investigators
I11 9 /179.0°E The Carleton-Walsh Report: Mid-evening news and current affairs program.

1135 GMT

S06 -1 /90.0°E Fil'm (Film)

1150 GMT

I17 20 /57.0°E Cartoon: Children's programming.

1200 GMT

I11 14 /179.0°E Your Life In Their Hands: "G".

1205 GMT

I11 9 /179.0°E First Take: "G".

1230 GMT

I17 20 /57.0°E Educational Program

1235 GMT

I11 14 /179.0°E The Fainthearted Feminist: "PGR".

1240 GMT

I11 9 /179.0°E The Life and Adventures of Nicholas Nickleby: Charles Dicken's tale.

1300 GMT

I11 22 /179.0°E Sign On

1305 GMT

I11 14 /179.0°E Countrywide: Rural affairs.

1330 GMT

I11 14 /179.0°E The Carleton-Walsh Report: Mid-evening news and current affairs program.
I11 22 /179.0°E ABC World News AM

1335 GMT

I17 20 /57.0°E Prayers

1340 GMT

I11 9 /179.0°E Close
I17 20 /57.0°E Arabic Serial

1400 GMT

I11 22 /179.0°E NBC Today Show
S07 9 /140.0°E Segodnya V Mire (Today in the World): World News.

1405 GMT

I11 14 /179.0°E First Take: "G".

1430 GMT

I17 20 /57.0°E Cultural Program

PACIFIC OCEAN REGION

All times are Greenwich Meridian time

1440 GMT

I11 14 /179.0°E **The Life and Adventures of Nicholas Nickleby:** A Charles Dicken's tale.

1500 GMT

I17 20 /57.0°E **News:** Local.

1520 GMT

I17 20 /57.0°E **SPORTS-Sports Magazine**

1540 GMT

I11 14 /179.0°E **Close**

1600 GMT

I11 22 /179.0°E **CNN Headline News**
I17 20 /57.0°E **Cultural Program**

1630 GMT

I11 22 /179.0°E **ESPN Sportscenter or CNN Headline News**

1700 GMT

I11 22 /179.0°E **CNN Take Two:** Hour 2.
I17 20 /57.0°E **News:** Arabic.
S06 9 /90.0°E **Segodnya V Mire (Today in the World):** World News.

1725 GMT

I17 20 /57.0°E **Arabic Serial**

1800 GMT

I11 22 /179.0°E **CNN Headline News**

1830 GMT

I11 22 /179.0°E **SPORTS-American Interests**
I17 20 /57.0°E **English News-Program Review**

1835 GMT

S07 -1 /140.0°E **Fil'm (Film)**

1900 GMT

I11 22 /179.0°E **McLaughlin Group**
I17 20 /57.0°E **Best Sellers**
S07 -1 /140.0°E **Na Zaryadku Stanovis' (Stand up for Exercises)**
S07 9 /140.0°E **Vremya (Time):** The Moscow Morning News.

1915 GMT

S07 -1 /140.0°E **Fil'm (Film)**

1930 GMT

I11 22 /179.0°E **Entertainment This Week:** Entertainment news program from Hollywood, California.

2000 GMT

I13 24 /174.0°E **UPITN News from Washington DC to NHK Japan**

2030 GMT

I11 22 /179.0°E **CNN Headline News**
I16 24 /60.0°E **Visnews London for Asia and Pacific**
I17 20 /57.0°E **News in Brief-Holy Koran**

2045 GMT

I17 20 /57.0°E **Royal Anthem**

2100 GMT

I11 22 /179.0°E **CNN Take Two:** Hour 1.

I13 24 /174.0°E **UPITN News from NY to Pacific**

2130 GMT

I16 24 /60.0°E **Visnews London**

2200 GMT

I11 22 /179.0°E **AFRTS Advisory Block:** Schedules, advisories and color bars.
I11 9 /179.0°E **Sesame Street:** Children's programming.
S06 -1 /90.0°E **Na Zaryadku Stanovis' (Stand up for Exercises)**
S06 9 /90.0°E **Vremya (Time):** The Moscow Morning News.

2210 GMT

S07 -1 /140.0°E **Film with Subtitles (time varies)**

2215 GMT

S06 -1 /90.0°E **Fil'm (Film)**

2230 GMT

I11 22 /179.0°E **ABC World News Tonight**

2300 GMT

I11 22 /179.0°E **NBC Nightly News**
I11 9 /179.0°E **The Voyages of Dr. Dolittle**

2330 GMT

I11 22 /179.0°E **CBS Evening News**
I11 9 /179.0°E **Play School**

2345 GMT

S07 -1 /140.0°E **Ispanskij Yazyk (Spanish Language)**

THURSDAY

0000 GMT

I11 14 /179.0°E **Sesame Street:** Children's programming.
I11 22 /179.0°E **CNN Continues**
I11 9 /179.0°E **Trapp, Winkle and Box**

0020 GMT

I11 9 /179.0°E **The Magic Bag**

0040 GMT

I11 9 /179.0°E **Northern Australian Documentaries**

0100 GMT

I11 14 /179.0°E **The Voyages of Dr. Dolittle**
I11 22 /179.0°E **CBS News West-Coast Edition**
I11 9 /179.0°E **For the Juniors**

0110 GMT

S06 -1 /90.0°E **Film with Sub-titles (time varies)**

0120 GMT

I11 9 /179.0°E **A Steam Train Passes**

0130 GMT

I11 14 /179.0°E **Play School**
I11 22 /179.0°E **MacNeil, Lehrer Report**

0140 GMT

I11 9 /179.0°E **Old Treasures From New China**

0150 GMT

S07 9 /140.0°E **Dokumental'Nye Fil'my (Documentary Film)**

0200 GMT

I11 14 /179.0°E **Trapp, Winkle and Box**
I11 9 /179.0°E **Senior Science**

0220 GMT

I11 14 /179.0°E **The Magic Bag**

0230 GMT

I11 22 /179.0°E **CNN Continues**
I11 9 /179.0°E **Countrywide**

0240 GMT

I11 14 /179.0°E **Northern Australian Documentaries**

0245 GMT

S06 -1 /90.0°E **Ispanskij Yazyk (Spanish Language)**

0300 GMT

I11 14 /179.0°E **For the Juniors**
I11 9 /179.0°E **Chemistry In Industry**

0320 GMT

I11 14 /179.0°E **A Steam Train Passes**

0325 GMT

I11 9 /179.0°E **The German Program**

0330 GMT

I11 22 /179.0°E **NBC Tonight Show starring Johnny Carson**

0340 GMT

I11 14 /179.0°E **Old Treasures From New China**

0400 GMT

I11 14 /179.0°E **Senior Science**

0430 GMT

I11 14 /179.0°E **Countrywide**
I11 22 /179.0°E **CNN Sports Tonite**

0450 GMT

S06 9 /90.0°E **Dokumental'Nye Fil'my (Documentary Film)**

0500 GMT

I11 14 /179.0°E **Chemistry In Industry**
I11 22 /179.0°E **ABC Nightline**
I11 9 /179.0°E **Sesame Street:** Children's programming.

0525 GMT

I11 14 /179.0°E **The German Program**

0530 GMT

I11 22 /179.0°E **CNN Headline News**

0545 GMT

S07 9 /140.0°E **Segodnya V Mire (Today in the World):** World News.

0555 GMT

I11 9 /179.0°E **Rubarb**

0600 GMT

I11 22 /179.0°E **AFRTS Sign Off:** With advisories if necessary, followed by CNN commercial feed.
I11 9 /179.0°E **Play School:** Children's programming.

S07 -1 /140.0°E **Sel'skij Chas (Village Hour)**

0630 GMT

I11 9 /179.0°E **Swallows and Amazons Forever:** "G".

0700 GMT

I11 14 /179.0°E **Sesame Street:** Children's programming.
I11 9 /179.0°E **Antenna:** Pop music clips, comedy, film consumer reviews and important issues for young people.
S07 -1 /140.0°E **Spokijnoj Nochi, Malyshi (Good Night, Kids)**

0725 GMT

I11 9 /179.0°E **Dangermouse:** "G".

0730 GMT

I11 9 /179.0°E **Battle of the Planets:** "G".

0755 GMT

I11 14 /179.0°E **Rubarb**
I11 9 /179.0°E **Come and Get It**

0800 GMT

I11 14 /179.0°E **Play School:** Children's programming.
I11 9 /179.0°E **News Free Zone**
S07 -1 /140.0°E **Vremya (Time):** The Moscow Evening News, Sports, Weather.
S07 9 /140.0°E **Vremya (Time):** The Moscow Evening News, Sports, Weather.

0830 GMT

I11 14 /179.0°E **Swallows and Amazons Forever:** "G".
I11 9 /179.0°E **ABC National:** News.

0835 GMT

S07 -1 /140.0°E **Fil'm (Film)**

0845 GMT

S06 9 /90.0°E **Segodnya V Mire (Today in the World):** World News.

0900 GMT

I11 14 /179.0°E **Antenna:** Pop music clips, comedy, film consumer reviews and important issues for young people.
S06 -1 /90.0°E **Sel'skij Chas (Village Hour)**
S07 9 /140.0°E **Leninskij Universitet Millionov (Lenin University for the Millions)**

0925 GMT

I11 14 /179.0°E **Dangermouse**

0930 GMT

I11 14 /179.0°E **Battle of the Planets:** "G".
I11 9 /179.0°E **Palace of Dreams**

0955 GMT

I11 14 /179.0°E **Come and Get It**

1000 GMT

I11 14 /179.0°E **News Free Zone**
S06 -1 /90.0°E **Spokijnoj Nochi, Malyshi (Good Night, Kids)**

1025 GMT

I11 9 /179.0°E **Pressure Point:** Interviews concerning major current affairs and news stories of the week.

All times are Greenwich Meridian time

1030 GMT

I11 14 /179.0°E ABC National: News.

1055 GMT

I11 9 /179.0°E It Takes a Worried Man: "PGR".

1100 GMT

I17 20 /57.0°E Royal Anthem-Holy Koran: Religious talk.
S06 -1 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S06 9 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1125 GMT

I17 20 /57.0°E Cartoon: Children's programming.

1130 GMT

I11 14 /179.0°E Palace of Dreams
I11 9 /179.0°E The Carleton-Walsh Report: Mid-evening news and current affairs program.

1135 GMT

S06 -1 /90.0°E Fil'm (film)

1155 GMT

I11 9 /179.0°E Encounters

1200 GMT

I17 20 /57.0°E Educational Program
S06 9 /90.0°E Leninskij Universitet Millionov (Lenin University for the Millions)

1225 GMT

I11 14 /179.0°E Pressure Point: Interviews concerning major current affairs and news stories of the week.

1230 GMT

I17 20 /57.0°E Indian Film

1250 GMT

I11 9 /179.0°E The Agatha Christie Hour

1255 GMT

I11 14 /179.0°E It Takes a Worried Man: "PGR".

1300 GMT

I11 22 /179.0°E Sign On

1330 GMT

I11 14 /179.0°E The Carleton-Walsh Report: Mid-evening news and current affairs program.
I11 22 /179.0°E ABC World News AM

1335 GMT

I17 20 /57.0°E Prayers

1345 GMT

I11 9 /179.0°E Close

1355 GMT

I11 14 /179.0°E Encounters

1400 GMT

I11 22 /179.0°E NBC Today Show
S07 9 /140.0°E Segodnya V Mire (Today in the World): World News.

1430 GMT

I17 20 /57.0°E Cultural Program

1450 GMT

I11 14 /179.0°E The Agatha Christie Hour

1500 GMT

I17 20 /57.0°E News: Local.

1520 GMT

I17 20 /57.0°E Local Program

1545 GMT

I11 14 /179.0°E Close

1600 GMT

I11 22 /179.0°E CNN Headline News
I17 20 /57.0°E English Serial

1630 GMT

I11 22 /179.0°E SPORTS-ESPN Sportscenter

1700 GMT

I11 22 /179.0°E CNN Take Two: Hour 2.
I17 20 /57.0°E News: Arabic.
S06 9 /90.0°E Segodnya V Mire (Today in the World): World News.

1800 GMT

I11 22 /179.0°E CNN Headline News

1830 GMT

I11 22 /179.0°E CNN Continues or Road to Los Angeles
I17 20 /57.0°E English News-Program Review

1900 GMT

I11 22 /179.0°E CNN Continues
S07 -1 /140.0°E Na Zaryadku Stanovis' (Stand up for Exercises)
S07 9 /140.0°E Vremya (Time): The Moscow Morning News.

1930 GMT

I11 22 /179.0°E Solid Gold: American pop music show counts down the top ten tunes of the week.

2000 GMT

I13 24 /174.0°E UPITN News from Washington DC to NHK Japan

2005 GMT

S07 9 /140.0°E Fil'm (Film)

2030 GMT

I11 22 /179.0°E CNN Headline News
I16 24 /60.0°E Visnews London for Asia and Pacific
I17 20 /57.0°E News in Brief-Holy Koran

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

I11 22 /179.0°E CNN Take Two: Hour 1.
I13 24 /174.0°E UPITN News from NY to Pacific

2130 GMT

I16 24 /60.0°E Visnews London

2200 GMT

I11 22 /179.0°E AFRTS Advisory Block: Schedules, advisories and color bars.
I11 9 /179.0°E Sesame Street: Children's programming.
S06 -1 /90.0°E Na Zaryadku Stanovis' (Stand up for Exercises)
S06 9 /90.0°E Vremya (Time): The Moscow Morning News.

2230 GMT

I11 22 /179.0°E ABC World News Tonight

2300 GMT

I11 22 /179.0°E NBC Nightly News
I11 9 /179.0°E The Voyages of Dr. Dolittle

2305 GMT

S06 9 /90.0°E Fil'm (Film)

2330 GMT

I11 22 /179.0°E CBS Evening News
I11 9 /179.0°E Play School

FRIDAY

0000 GMT

I11 14 /179.0°E Sesame Street: Children's programming.
I11 22 /179.0°E CNN Continues
I11 9 /179.0°E Watch

0015 GMT

I11 9 /179.0°E Look at a Book

0020 GMT

I11 9 /179.0°E Infinity Ltd.

0040 GMT

I11 9 /179.0°E Africa

0055 GMT

I11 9 /179.0°E Three Weeks in Haruli's Life

0100 GMT

I11 14 /179.0°E The Voyages of Dr. Dolittle
I11 22 /179.0°E CBS News West-Coast Edition

0120 GMT

I11 9 /179.0°E Trapp, Winkel and Box

0130 GMT

I11 14 /179.0°E Play School
I11 22 /179.0°E MacNeil, Lehrer Report

0140 GMT

I11 9 /179.0°E Families

0150 GMT

S07 9 /140.0°E Dokumental'Nye Fil'my (Documentary Film)

0200 GMT

I11 14 /179.0°E Watch
I11 9 /179.0°E The Great Composers

0215 GMT

I11 14 /179.0°E Look at a Book

0220 GMT

I11 14 /179.0°E Infinity Ltd.

0230 GMT

I11 22 /179.0°E CNN Continues
I11 9 /179.0°E Faces of Man

0240 GMT

I11 14 /179.0°E Africa

0255 GMT

I11 14 /179.0°E Three Weeks in Haruli's Life

0300 GMT

I11 9 /179.0°E Our Asian Neighbours
S07 -1 /140.0°E Anglijskij Yazyk (English Language): (time varies)

0320 GMT

I11 14 /179.0°E Trapp, Winkel and Box

0325 GMT

I11 9 /179.0°E Insight

0330 GMT

I11 22 /179.0°E NBC Tonight Show starring Johnny Carson

0340 GMT

I11 14 /179.0°E Families

0400 GMT

I11 14 /179.0°E The Great Composers

0430 GMT

I11 14 /179.0°E Faces of Man
I11 22 /179.0°E CNN Sports Tonite

0450 GMT

S06 9 /90.0°E Dokumental'Nye Fil'my (Documentary Film)

0500 GMT

I11 14 /179.0°E Our Asian Neighbours
I11 22 /179.0°E ABC Nightline
I11 9 /179.0°E Sesame Street: Children's programming.

0525 GMT

I11 14 /179.0°E Insight

0530 GMT

I11 22 /179.0°E CNN Headline News

0545 GMT

S07 9 /140.0°E Segodnya V Mire (Today in the World): World News.

0555 GMT

I11 9 /179.0°E Rubarb

0600 GMT

I11 22 /179.0°E AFRTS Sign Off: With advisories if necessary, followed by CNN commercial feed.
I11 9 /179.0°E Play School
I17 20 /57.0°E Royal Anthem
S06 -1 /90.0°E Anglijskij Yazyk (English Language): (time varies)

0605 GMT

I17 20 /57.0°E Holy Koran: Religious talk.

0630 GMT

I11 9 /179.0°E Swallows and Amazons Forever
I17 20 /57.0°E Cartoon: Children's programming
S07 9 /140.0°E Russkaya Rech' (Russian Language)

PACIFIC OCEAN REGION

All times are Greenwich Meridian time

0655 GMT

I11 9 /179.0°E Australian Wildlife Club Bulletin

0700 GMT

I11 14 /179.0°E Sesame Street: Children's programming.
I11 9 /179.0°E Children of the Dog Star: "G".
I17 20 /57.0°E World of Children
S07 -1 /140.0°E Spokojnoj Nochi, Malyshi (Good Night, Kids)

0715 GMT

S07 -1 /140.0°E Ritmicheskaya Ya Gimnastika (Rhythmic Gymnastics)

0725 GMT

I11 9 /179.0°E Dangermouse: "G".

0730 GMT

I11 9 /179.0°E Battle of the Planets: "G".

0745 GMT

I17 20 /57.0°E Health Program

0755 GMT

I11 14 /179.0°E Rubarb
I11 9 /179.0°E SPORTS-World Cup Athletics Report

0800 GMT

I11 14 /179.0°E Play School
I11 9 /179.0°E News Free Zone
I17 20 /57.0°E Prayers
S07 -1 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S07 9 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

0830 GMT

I11 14 /179.0°E Swallows and Amazons Forever
I11 9 /179.0°E ABC National: News.

0835 GMT

S07 -1 /140.0°E Fil'm (Film)

0845 GMT

I17 20 /57.0°E Religious Program
S06 9 /90.0°E Segodnya V Mire (Today in the World): World News.

0855 GMT

I11 14 /179.0°E Australian Wildlife Club Bulletin

0900 GMT

I11 14 /179.0°E Children of the Dog Star: "G".
I17 20 /57.0°E News in Brief

0905 GMT

I17 20 /57.0°E SPORTS-Football

0925 GMT

I11 14 /179.0°E Dangermouse: "G".

0930 GMT

I11 14 /179.0°E Battle of the Planets: "G".
I11 9 /179.0°E One By One
S06 9 /90.0°E Russkaya Rech' (Russian Language)

0955 GMT

I11 14 /179.0°E SPORTS-World Cup Athletics Report

1000 GMT

I11 14 /179.0°E News Free Zone
S06 -1 /90.0°E Spokojnoj Nochi, Malyshi (Good Night, Kids)

1015 GMT

S06 -1 /90.0°E Ritmicheskaya Ya Gimnastika (Rhythmic Gymnastics)

1025 GMT

I11 9 /179.0°E Hollywood: "G".

1030 GMT

I11 14 /179.0°E ABC National: News.

1035 GMT

I17 20 /57.0°E Children's Program: English.

1100 GMT

I17 20 /57.0°E English Program
S06 -1 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S06 9 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.

1120 GMT

I11 9 /179.0°E It Ain't Half Hot Mum: "PGR".

1130 GMT

I11 14 /179.0°E One By One

1135 GMT

S06 -1 /90.0°E Fil'm (Film)

1150 GMT

I11 9 /179.0°E SPORTS-Jack High: Mazda International Bowls Tournament.

1200 GMT

I17 20 /57.0°E Arabic Film

1225 GMT

I11 14 /179.0°E Hollywood: "G".

1250 GMT

I11 9 /179.0°E Race to Canberra

1300 GMT

I11 22 /179.0°E Sign On

1320 GMT

I11 14 /179.0°E It Ain't Half Hot Mum: "PGR".

1325 GMT

I11 9 /179.0°E Hi De Hi: "PGR".

1330 GMT

I11 22 /179.0°E ABC World News AM

1350 GMT

I11 14 /179.0°E SPORTS-Jack High: Mazda International Bowls Tournament.
I17 20 /57.0°E Variety

1355 GMT

I11 9 /179.0°E SPORTS-Harness Racing

1400 GMT

I11 22 /179.0°E NBC Today Show
S07 9 /140.0°E Segodnya V Mire (Today in the World): World News.

1415 GMT

I11 9 /179.0°E Close

1445 GMT

I17 20 /57.0°E Songs

1450 GMT

I11 14 /179.0°E Race to Canberra

1500 GMT

I17 20 /57.0°E Faces and Events

1525 GMT

I11 14 /179.0°E Hi De Hi: "PGR".

1555 GMT

I11 14 /179.0°E SPORTS-Harness Racing

1600 GMT

I11 22 /179.0°E CNN Headline News
I17 20 /57.0°E Arabic Serial

1615 GMT

I11 14 /179.0°E Close

1630 GMT

I11 22 /179.0°E ESPN Sportscenter or CNN Headline News

1700 GMT

I11 22 /179.0°E CNN Take Two: Hour 2.
I17 20 /57.0°E News: Arabic.
S06 9 /90.0°E Segodnya V Mire (Today in the World): World News.

1730 GMT

I17 20 /57.0°E SPORTS-Wrestling

1830 GMT

I11 22 /179.0°E PBS Firing Line
I17 20 /57.0°E News: English.

1900 GMT

I17 20 /57.0°E Program Review
S07 -1 /140.0°E Na Zaryadku Stanovis' (Stand up for Exercises)
S07 9 /140.0°E Vremya (Time): The Moscow Morning News.

1905 GMT

I17 20 /57.0°E Arabic Program

1915 GMT

S07 -1 /140.0°E Esli Khochesh' Byt' Zdorov' (If You Want to be Healthy): Advise for Athletes.

1930 GMT

I11 22 /179.0°E To Be Announced

2000 GMT

I11 22 /179.0°E To Be Announced
I13 24 /174.0°E UPITN News from Washington DC to NHK Japan

2015 GMT

I17 20 /57.0°E News in Brief-Holy Koran

2030 GMT

I11 22 /179.0°E CNN Headline News
I16 24 /60.0°E Visnews London for Asia and Pacific

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

I11 22 /179.0°E CNN Take Two: Hour 1.
I13 24 /174.0°E UPITN News from NY to Pacific
S07 -1 /140.0°E Utrennyaya Pochta (The Morning Mail): (time varies).

2130 GMT

I16 24 /60.0°E Visnews London

2200 GMT

I11 22 /179.0°E AFRTS Advisory Block: Schedules, advisories and color bars.
S06 -1 /90.0°E Na Zaryadku Stanovis' (Stand up for Exercises)
S06 9 /90.0°E Vremya (Time): The Moscow Morning News.

2215 GMT

S06 -1 /90.0°E Esli Khochesh' Byt' Zdorov' (If You Want to be Healthy): Advise for Athletes.

2230 GMT

I11 22 /179.0°E ABC World News Tonight

2300 GMT

I11 22 /179.0°E NBC Nightly News

2320 GMT

I11 9 /179.0°E Home Grown: Gardening.

2330 GMT

I11 22 /179.0°E CBS Evening News

2335 GMT

I11 9 /179.0°E SPORTS-Jack High: Mazda International Bowls Tournament.

SATURDAY

0000 GMT

I11 22 /179.0°E CNN Continues
S06 -1 /90.0°E Utrennyaya Pochta (The Morning Mail): (time varies).

0035 GMT

I11 9 /179.0°E Buongiorno Italia: A series of programs for beginners in Italian.

0100 GMT

I11 9 /179.0°E The Media

0120 GMT

I11 14 /179.0°E Home Grown: Gardening.
I11 9 /179.0°E Detective

0130 GMT

I11 22 /179.0°E MacNeil, Lehrer Report

0135 GMT

I11 14 /179.0°E SPORTS-Jack High: Mazda International Bowls Tournament.

0140 GMT

I11 9 /179.0°E Consumer Capers

0200 GMT

I11 9 /179.0°E Antenna: Pop music clips, comedy, film con-

PACIFIC OCEAN REGION

All times are Greenwich Meridian time

0225 GMT

I11 9 /179.0°E Roger Ramjet: "G".

0230 GMT

I11 22 /179.0°E CNN Continues
I11 9 /179.0°E Sweet and Sour

0235 GMT

I11 14 /179.0°E Buongiorno Italia: A series of programs for beginners in Italian.

0300 GMT

I11 14 /179.0°E The Media
I11 9 /179.0°E Beatbox: Rock 'n roll lifestyle program.

0320 GMT

I11 14 /179.0°E Detective

0330 GMT

I11 22 /179.0°E NBC Tonight Show starring Johnny Carson

0340 GMT

I11 14 /179.0°E Consumer Capers

0400 GMT

I11 14 /179.0°E Antenna: Pop music clips, comedy, film consumer reviews and important issues for young people.

0425 GMT

I11 14 /179.0°E Roger Ramjet: "G".

0430 GMT

I11 14 /179.0°E Sweet and Sour
I11 22 /179.0°E CNN Sports Tonite
S07 -1 /140.0°E Travelers Club: (time varies).

0455 GMT

I11 9 /179.0°E SPORTS-Rugby International

0500 GMT

I11 14 /179.0°E Beatbox: Lifestyle program.
I11 22 /179.0°E ABC Nightline

0530 GMT

I11 22 /179.0°E CNN Headline News

0600 GMT

I11 22 /179.0°E AFRTS Sign Off: With advisories if necessary, followed by CNN commercial feed.

0615 GMT

S07 -1 /140.0°E Mezhdunarodnoe Obozrenie (International Review): (time varies).

0635 GMT

I11 14 /179.0°E SPORTS- Harness Racing

0650 GMT

I11 20 /179.0°E SPORTS-Sports Roundup

0655 GMT

I11 14 /179.0°E SPORTS-Rugby International

0700 GMT

I11 20 /179.0°E Countdown
S07 -1 /140.0°E Spokijonoj Nochi, Malyshi (Good Night, Kids)

0730 GMT

S06 -1 /90.0°E Travelers Club: (time varies).

0800 GMT

I11 9 /179.0°E League '85
S07 -1 /140.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S07 9 /140.0°E Vremya (Time)

0835 GMT

I11 14 /179.0°E SPORTS-Harness Racing
S07 -1 /140.0°E Fil'm (Film)

0850 GMT

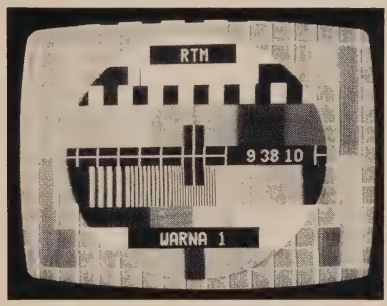
I11 14 /179.0°E SPORTS- World Sports Roundup

0900 GMT

I11 14 /179.0°E Countdown
I11 9 /179.0°E Weekend National

0915 GMT

S06 -1 /90.0°E Mezhdunarodnoe Obozrenie (International



Review): (time varies).

0930 GMT

I11 9 /179.0°E Australian Impact

1000 GMT

I11 14 /179.0°E League '85
S06 -1 /90.0°E Spokijonoj Nochi, Malyshi (Good Night, Kids)

1100 GMT

I11 14 /179.0°E Weekend National
I17 20 /57.0°E Royal Anthem-Holy Koran: Religious talk.
S06 -1 /90.0°E Vremya (Time): The Moscow Evening News, Sports, Weather.
S06 9 /90.0°E Vremya (Time)

1125 GMT

I11 9 /179.0°E Late Night Movie: "PGR".
I17 20 /57.0°E Cartoon: Children's programming.

1130 GMT

I11 14 /179.0°E Australian Impact: "G".

1135 GMT

S06 -1 /90.0°E Fil'm (Film)

1200 GMT

I17 20 /57.0°E Educational Program

1230 GMT

I17 20 /57.0°E Program for Children

1300 GMT

I11 22 /179.0°E AFRTS Sign On: Schedules, advisories and color bars.
I11 9 /179.0°E Rock Arena
I17 20 /57.0°E Open Seasame: Children's Program in Arabic.

1325 GMT

I11 14 /179.0°E Late Night Movie: "PGR".

1330 GMT

I11 22 /179.0°E CNN Headline News

1340 GMT

I17 20 /57.0°E Arabic Serial

1400 GMT

I11 22 /179.0°E PBS Washington Week In Review
I11 9 /179.0°E Close

1430 GMT

I11 22 /179.0°E Navy News This Week
I17 20 /57.0°E Cultural Program

1500 GMT

I11 14 /179.0°E Rock Arena
I11 22 /179.0°E CNN Continues
I17 20 /57.0°E News: Local.

1505 GMT

I17 20 /57.0°E Cultural Program

1530 GMT

I11 22 /179.0°E CNN Headline News

1600 GMT

I11 14 /179.0°E Close
I11 22 /179.0°E SPORTS-Major Sports Event
I17 20 /57.0°E English Serial

1700 GMT

I17 20 /57.0°E News: Arabic.

1725 GMT

I17 20 /57.0°E Arabic Serial

1830 GMT

I17 20 /57.0°E News: English.

1900 GMT

I11 22 /179.0°E SPORTS-ABC Wide World of Sports
I17 20 /57.0°E Local Program
S07 -1 /140.0°E Na Zaryadku Stanovis' (Stand up for Exercises)
S07 9 /140.0°E Vremya (Time): The Moscow Morning News.

1930 GMT

S07 -1 /140.0°E Ritmicheskaya Gimnastika (Rhythmic gymnastics)

2000 GMT

S07 -1 /140.0°E Russkaya Rech' (Russian Language)

2020 GMT

S07 9 /140.0°E Sportloto (Sport lottery): Drawing.

2030 GMT

I17 20 /57.0°E News in Brief-Holy Koran
S07 9 /140.0°E Budil'nik (The Alarm Clock)

2045 GMT

I17 20 /57.0°E Royal Anthem

2100 GMT

S07 9 /140.0°E Sluzhy Sovetskomu Soyuzu (I Serve the Soviet Union)

2145 GMT

I11 9 /179.0°E Home Grown

2200 GMT

I11 22 /179.0°E CNN Headline News
I11 9 /179.0°E SPORTS-Rugby World
S06 -1 /90.0°E Na Zaryadku Stanovis' (Stand up for Exercises)
S06 9 /90.0°E Vremya (Time): The Moscow Morning News.
S07 9 /140.0°E Zdorov'e (Health)

2230 GMT

S06 -1 /90.0°E Ritmicheskaya Gimnastika (Rhythmic gymnastics)

2245 GMT

S07 9 /140.0°E Utrennya Ya Pochta (The Morning Mail)

2300 GMT

I11 22 /179.0°E CNN Continues
I11 9 /179.0°E Playmates: Children's programming.
S06 -1 /90.0°E Russkaya Rech' (Russian Language)

2315 GMT

S07 9 /140.0°E Kinozhurnal (Film Magazine)

2320 GMT

S06 9 /90.0°E Sportloto (Sport lottery): Drawing.

2330 GMT

S06 9 /90.0°E Budil'nik (The Alarm Clock)
S07 9 /140.0°E Sel'Skij Chas (Village Hour)

2345 GMT

I11 14 /179.0°E Home Grown

(continued from page 11)
for BT's Madley 2 (Atlantic Ocean Intelsat), Madley 1 (Indian Ocean Intelsat), and Madley 4 (Eutelsat) telephony feeds.

A study commissioned by the French government outlining a European satellite television channel broadcasting in eight languages to a potential audience of 10 million households was released in July 1985. The new channel, Canal-1, would be carried on France's TDF-1, scheduled for a July 1986 Ariane launch. The study was commissioned by Communications Minister Georges Fillioud and prepared by Pierre Desgraupesn, formerly the director of the state-run Antenne-2 TV channel.

While delegations from every corner of the globe were trying to make plowshares out of swords at the 1985 World Administrative Radio Conference (WARC-85) in Geneva, the International Telecommunications Satellite Organization (Intelsat) was strategically realigning its workhorse satellites over the Atlantic. Intelsat V F2 is now stationed at 1 degree west and VA F2 has been retired. Intelsat VA FI1 replaced VA FI0 at 27.5 degrees west, and VA FI0 was moved to 24.5 degrees west where it replaced V F3 which, in turn, will be repositioned. NASA launched Intelsat VA FI1 from Cape Canaveral in June 1985 on an Atlas Centaur expendable launch vehicle (ELV).

Dr. Joseph Charyk, Chairman and Chief Executive Officer of the Communications Satellite Corp. (Comsat) since 1983, will retire at the end of September 1985 when he reaches the mandatory retirement age of 65. Charyk will continue to serve on the Comsat board of directors. The board has elected Irving Goldstein, 47, who has been Comsat's President and Chief Operating Officer (P&COO) since 1983, to Charyk's position. Marcel Joseph, who joined Comsat in April 1985, will replace Goldstein as P&COO. "Dr. Charyk," says Goldstein, "has played the leading role in Comsat since the corporation was founded 22 years ago." Comsat is the U.S. signatory access agent for the International Telecommunications Satellite Organization (Intelsat) services.

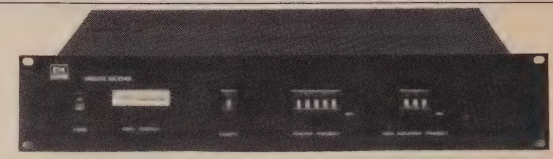
HARDWARE

Megasat Ltd. introduced three new products at Cable '85 in Brighton, England: a 2.5-dB noise figure Mega 800 low noise block downconverter (LNB); the Televes Satellite 90 satellite master antenna television (SMATV) demodulator/modulator with tunable output across the VHF and UHF spectrum; and the Mini Director, a "robot" that can be programmed to select and play videocassettes from a 16-tape library. For more information, contact: Megasat Ltd., 5 St. Pancras Commercial Centre, 63 Pratt Street, London NW1 OBY, U.K. Telephone 01-267 5222.

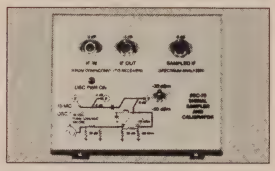
Aventek has introduced two 3.7- to 4.2-GHz block downconverters for TVRO use. The ABC-40930 has an output frequency range of 430 to 930 MHz; the ABC-41430 has an output frequency range of 950 to 1450 MHz. Both exhibit 20-dB gain with ±2 dB flatness and have a 15-dB typical noise figure, according to the manufacturer. For more information, contact: Aventek Inc., 481 Cottonwood Drive, Milpitas, CA 95035, U.S.A. Telephone (408) 943-4335.

Blonder-Tongue has introduced the CAVM 5913 heterodyne audio/video modulator that can accept input from satellite receivers and other sources. Available in VHF (channels 2 – 13), midband (channels A – I), and superband (channels J – W) models, the CAVM has vestigial sideband selectivity suited to adjacent color system use. According to the manufacturer, intermediate frequency (IF) loop-through supplies a padded IF output before channel conversion that can replace standard internally generated IF output with composite IF output. For more information, contact: Blonder-Tongue Laboratories Inc., One Jake Brown Road, Old Bridge, NJ 08857, U.S.A. Telephone (201) 679-4000.

CLAM, a carrier level alarm and monitor from LNR Communications, can simultaneously monitor the power levels of up to five cable channels. Available in 70- or 140-MHz bandwidth models, the unit has alarm levels that can be individually set. The CLAM has LED alarm indicators and five analog voltage test adjusters on its front panel. LNR has also released a data sheet describing their line of C- and Ku-band earth station loop test translators. For more information, contact: LNR Communications, 180 Marcus Boulevard, Hauppage, NY 11788, U.S.A. Telephone (516) 273-7111.



The DSA-654 receiver can be tuned in 1-MHz steps.



The SSC-70 signal sampler.

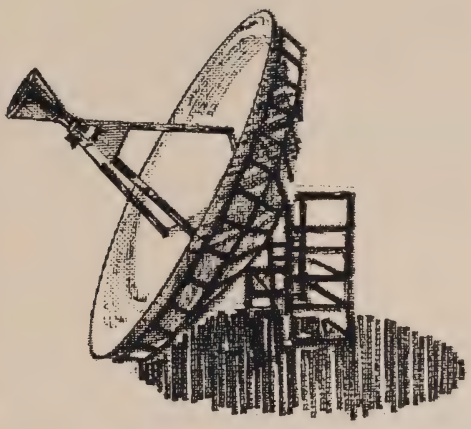
Avcom has introduced two products for use with its PSA-35 Portable Spectrum Analyzer (see related article, page 16). The SSC-70 is a signal sampler and PSA-35 calibrator. It can be used to sample downconverted intermediate frequency (IF) signals in the 30- to 200-MHz range. The IF signal is looped through the SSC-70 as it runs from the downconverter to the receiver, and is available to the PSA-35 through the "Sampled IF" port; the SSC-70 passes unaltered tuning voltage from the receiver to the downconverter. Terrestrial interference (TI) filters between the downconverter and the PSA-35 can be easily tuned. The SSC-70 is also equipped with an internal oscillator operating at 70 MHz, with harmonics at 140 MHz and beyond. Two switch selected amplitude settings, one at −30 dBm and one at −50 dBm, can be used to check the amplitude calibration and the frequency setting of the PSA-35. The calibration oscillator is powered by the PSA-35 through its input connector. The TISH-40, a highly directional TI survey horn, is also designed for use with Avcom's PSA-35. According to the manufacturers, the TISH-40 has 25-dB gain in the 3.7- to 4.2-GHz frequency range. For more information, contact: Avcom of Virginia Inc., 500 Southlake Boulevard, Richmond, VA 23236, U.S.A. Telephone (804) 794-2500.

DX Communications, a subsidiary of C. Itoh & Co. (America) Inc., has introduced the dual-band DSA-654 headend satellite signal receiver. The DSA-654 accepts 900- to 1400-MHz intermediate frequency (IF) block downconverted signals. It has frequency-synthesized video tuning in 1-MHz steps between 11.7- and 12.2-GHz in the Ku-band and 3.7- and 4.2-Ghz in the C-band. The unit also has clamped or unclamped video capability, composite baseband outputs, and frequency synthesized audio subcarrier tuning in 10-kHz steps. Optional field-installable 24-MHz and 17-MHz wide bandpass filters are available. For more information, contact: DX Communications, 10 Skyline Drive, Hawthorne, NY 10532, U.S.A. Telephone (914) 347-4040.

Flame-retardant coaxial cable that meets a variety of U.S. codes and standards is now available from Scientific-Atlanta. For more information, contact: Scientific Atlanta Inc., Coaxial Cable Division, One Technology Park, Box 105600, Atlanta, GA 30348, U.S.A. Telephone (602) 286-8744.

Positrap, an interfering-carrier scrambling system for cable distribution systems, has been introduced by Microwave Filter. The model EC Positrap channel encoder inserts a jamming carrier between the video and audio carriers of a selected channel to render it unusable in unauthorized homes. The optional model LS Positrap lower adjacent channel security module can be used when the lower adjacent channel next to an EC encoded channel is not being used. The model LS generates a wave at the lower adjacent sound carrier level that makes it impossible to fine tune the premium programming. The encoder generator and lower sound generator can be combined at the output of a cable system's modulator or connected directly to the headend combiner; the output signal level is adjustable from 43 dBmV to 63 dBmV. The optional model PE Positrap preemphasis ampli-

Beam Into The World Marketplace



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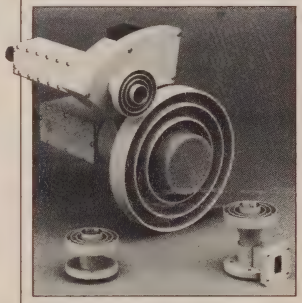
fier boosts a portion of the signal, thereby enhancing the quality of the decoded signal after the interfering signal has been trapped. The Positrap EC, LS, and PE are available for channels 2 – 6, A – I, and 7 – 13. 5-KVP Positrap decoder traps are available for the same channel blocks. For more information, contact: Microwave Filter Co., Inc., 6743 Kinne Street, East Syracuse, NY 13057, U.S.A. Telephone (315) 437-3953.

Shyam's 2.5- to 2.75-GHz satellite reception system can be used to receive Arabsat and Insat S-band channels. Mesh antennas, in 8-, 10-, and 16-foot (2.5, 3, and 5m) diameters, polar or El/Az mounts, and an 100-degree Kelvin 2.4- to 2.7-GHz low noise convertor (LNC) are available. Shyam's continuous-tuning S-band receiver has a 10-LED power level indicator and fixed 5.5 MHz audio subcarrier tuning. Its standard output is channel 3 or 4 CCIR PAL-B. Variable subcarrier tuning, deemphasis, and output format modifications are optional. The receiver can accept 230 volts, 50 Hz; or 110 volts, 60-Hz power. For more information, contact: Shyam Antenna Electronic Pvt. Ltd., F-114 Narain Vihar, New Delhi 110028, India. Telephone (New Dehli) 539525.

The PRK-1 single-channel receiver, part of Sat-Tel's master antenna television reception and distribution package, has automatic frequency control (AFC) and can be factory preset to receive programming from a single designated Ku-band transponder. The PRK-1 receiver is complemented by the SAD-6/12 Signal Splitter that allows up to 12 such receivers to be driven by a single low noise converter (LNC). For more information, contact: Space Communications (Sat-Tel) Ltd., 9 Edgemead Close, Round Spinney, Northampton NN3 4RG, U.K. Telephone (0604) 499433.

Tratec's stereo processor

Tratec, in association with Leaming Industries, is marketing a satellite stereo audio signal processing system consisting of stereo subcarrier receivers (FMR-622) or stereo processors (FMU-622) mounted in a single 19-inch mainframe that accepts 220 or 240 volt power. The LPS-300 mainframe can handle a combination of four logic cards. The FMR-622, with adjustable squelch to block carrier loss, is designed to receive the 7.02-MHz left-channel subcarrier and the 7.20 right-channel subcarriers used by Music Box and SkyChannel. The stereo processor, designed for cable applications, demodulates stereo channel subcarriers, multiplexes them into standard stereo format, and then modulates them up to an FM band channel. Output frequency can be field-adjusted in 100-KHz steps. For more information, contact: Tratec B.V., P.O.B. 385, 3900 AJ Veenendaal, The Netherlands. Telephone (international code) 8385-21984.



Scalar feedhorns from Chaparral

Chaparral Communications has added the orthomode Dual 12 Feed and the 12-GHz Polarotor to its line of Ku-band scalar feedhorns. The feed and polarotor are easily attached to the side of a C-band scalar feedhorn with a simple mounting flange that uses two bolts. The higher power levels of Ku-band signals can compensate for the smaller feedhorn's position, slightly offset from a dual-band dish's prime focus. Chaparral's Ku-band feedhorns will operate on dishes with a f/d between .33 and .45. According to the manufacturer they deliver a standing wave ratio of 1.3 to 1 over the 11.7- to 12.7-GHz range with 35-dB cross polarity isolation and no signal loss through the feed. Similar feedhorns for the 10.7- to 11.7-GHz band are available by request. For more information, contact: Chaparral Communications, 2360 Bering Drive, San Jose, CA 95131, U.S.A. Telephone (408) 262-2536.

Miralite's new antenna

Miralite's new dual-band 2.4-meter antenna is a one-piece reflector. It is 78 percent efficient at C-band, 76 percent efficient at Ku-band, and has a typical sidelobe performance of – 19 dB, according to the manufacturer. Three mount options are available. For more information, contact: Miralite Corp., 4050 Chandler, Santa Ana, CA 92704, U.S.A. Telephone (714) 641-7000.

Rohde & Schwarz U.K. Ltd. exhibited new video products recently added to their equipment line at Cable '85. Among the units introduced:

- The ABKS Satellite IF Distributor is a 950- to 1750-MHz broadband amplifier that internally distributes satellite signals of both polarizations (X and Y) input through a pair of 3-dB couplers to two sets of four outputs and one test output (one set of five outputs for each sense of polarization).
- The EBKS Satellite IF Receiver accepts output from the ABKS, passes it through a selective channel filter, and converts the signal to a second 134-MHz intermediate frequency (IF) with a selectable 37- or 27-MHz bandwidth before passing it on to the rest of Rohde & Schwarz's RS002 Satellite Communications Receiving System.
- The compact UVF Video Analyzer has four push-button selected sampling programs that determine in which line and at what point each of 16 commonly used test parameters is measured.
- The SFSZ Satellite IF Test Transmitter generates 50- to 1750-MHz frequency modulated receiver-test carrier signals. The selected output frequency is indicated on a digital LED display.

For more information, contact: Rohde & Schwarz U.K. Ltd., Roebuck Road, Chessington, Surrey KT9 1LP, U.K. Telephone 01 397-8771.

The Siteman from Video Products Technology (VPT) is a 25-pound (11.3kg) portable TVRO field test set equipped with a 5-inch (13cm) color TV screen, a DC tuning meter, and a rechargeable battery. NTSC, PAL, and SECAM screens and circuitry are available for the video monitor. VPT can also provide recharging-unit transformers appropriate to electrical power standards around the globe (see *Satellite World*, April 1985). The C- and Ku-band compatible test unit has continuous video tuning and continuous audio subcarrier tuning. It also has ports for LNA, LNB, 70-MHz IF, and TV RF input arrayed under a variety of related push-button test controls. The unit is protected by a padded bag with a built-in sunscreen. For more information, contact: Video Products Technology, 105 Hayward Avenue, San Mateo, CA 94401, U.S.A. Telephone (415) 347-6467.

Video Product Technology's international field test set

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KU-BAND GEOSYNCHRONOUS SATELLITES

Keep up to date with the latest development in Ku-band satellite systems around the world, including GDL/Coronet, ECS, SBS, I, II, and III, the Aniks, and PanAmSat, *Satellite World* features Ku-band equipment reviews, discusses the pros and cons of true DBS service, and examines volatile issues such as how signal spillover might influence cultural makeups.

BAND C K BOTH
EXISTING
PROPOSED
STATSIONAR 10 USSR 170° W
SCS 2 US-Space C (1987) 166° W
COLSAT 2 US-Col C (1987) 147.5° W
AURORA II US-Alaskom (1989) 146° W
WESTAR VII US-Western Union (1990) 144° W
AURORA I US-Alaskom 143 ° W
171° W TDRS C US-Spacecom
175° W VSS PH II (DBS) US-Dominion
178° W FINANSAT I
179° E INTELSAT IVA F3
177.5° E MARECS B2A Inmarsat
GALAXY IV US-Hughes (1989) 140° W
SATCOM F1R US-RCA 139° W
SATCOM F3R US-RCA 131° W
ASC I US (1985) 128° W
TELSTAR 303 US-AT&T 125° W
136° W SPACENET 4 US-GTE/Spacenet (1989)
134° W GALAXY I US-Hughes
122.5° W WESTAR V US-Western Union
120° W SPACENET I US-GTE
116.5° W MORELOS F2 Mexico (1985)
113.5° W MORELOS F1 Mexico (1985)
111.5° W ANIK D2 Canada-Telesat
109° W ANIK B Canada-Telesat
104.5° W ANIK D1 Canada-Telesat
101° W FORDSAT I US-Ford Aerospace (1987)
101° W SBS IV US-SBS
99° W WESTAR IV US-Western Union
96° W TELSTAR 301 US-AT&T
93.5° W GALAXY III US-Hughes
93° W FORDSAT II US-Ford Aerospace (1987)
91° W WESTAR 6S US-Western Un on (1985)
91° W WESTAR III US-Western Union
87° W SPACENET III US-GTE (1985)
86° W TELSTAR 302 US-AT&T
85° W ARGENTINE SAT II Argentina
83° W STSC 1 Cuba (1988)
83° W SATCOM F4 US-RCA
83° W ASC II US (1988)
80° W ARGENTINE SAT I Argentina
79° W WESTAR III US Western Union (1986)
76° W COMSTAR D3 US-AT&T
65° W BRAZILSAT A1 (SBTS A1) Brazil (1985)
64° W ASC 3 & ASC 4 US-ASC (1987, 1989)
62 W SATCOM F7 US-RCA (1989)
61° W TDRS B US Spacecom (1985)
60° W INTELSAT IVA, V (1986)
57° W PANAMSAT I US (1987)
56° W INTELSAT IVA, V, VA (1987)
53° W INTELSAT V F8
67° W SATCOM F6 US-RCA (1986)
69° W SPACENET II US-GTE
70° W BRAZILSAT A2 (SBTS A2) Brazil (1985)
72° W SATCOM F2R US-RCA
74° W GALAXY II US-Hughes
75° W SATCOL 1A & 1B Colombia
31° W INTELSAT IVA F1
31° W UNISAT-1 U K (1989)
27.5° W INTELSAT VA F11
26° W MARECS A Inmarsat
25° W RADUGA 7 (STATSIONAR 8) USSR
24.5° W INTELSAT VA F10
23° W MARECS 2 Inmarsat
34.5° W INTELSAT V F4
40.5° W INTELSAT VB (1986)
41° W TDRS A US Spacecom
48° W FINANSAT II
50° W INTELSAT IV F1
176.5° E MARISAT F3 US-Comsat
176° E INTELSAT V (1986)
174° E INTELSAT IVA F6
167° E PAPAU New Guinea Sat
145° E STATSIONAR 16 USSR (1987)
136° E CS-2B Japan
132° E CS-3 Japan (1988)
125.9° E RADUGA 15 USSR
125° E STW-1 China
114.7° E SAKURA (CS) Japan
108° E PALAPA B1 Indonesia
INTELSAT V (1987) 173° E
CSE Japan (1985) 150° E
GORIZONT 6 (STATSIONAR 7) USSR (1984) 140° E
STATSIONAR-15 USSR 128° E
PALAPA B3 Indonesia (1985) 118° E
PALAPA B2 Indonesia 113° E
BS-3A Japan (1989) 108° E
GORIZONT 6 (STATSIONAR 14) USSR 95° E
INSAT IC India (1986) 94° E
GORIZONT 8 (STATSIONAR 6) USSR 90° E
GORIZONT 8 USSR 88.4° E
RADUGA 14 USSR 85° E
PALAPA A01 Indonesia 83° E
RADUGA 12 USSR 82.7° E
STATSIONAR 13 USSR 80° E
PALAPA A02 Indonesia 77° E
RADUGA 4 USSR 75.7° E
INSAT IB India 74° E
MARECS 2 Inmarsat 73° E
MARISAT F2 US-Comsat 72.5° E
STW-2 China (1985) 70° E
INTELSAT V (1985) 66 E
SIRIO Italy-CNR (1977) 65° E
MARECS 1 Inmarsat (1986) 64.5° E
INTELSAT V F5 63° E
INTELSAT V F7 60° E
INTELSAT V F1 57° E
GORIZONT 9 (STATSIONAR 5) USSR 53° E
STATSIONAR 12 USSR 40° E
GORIZONT 5 USSR 35.7° E
NAT SAT 1 Nigeria 20° E
NAT SAT 2 Nigeria 16° E
F-SAT 1 France (1987) 07° E
01° W INTELSAT V F2
05° W TELECOM F2 France
08° W TELECOM F1 France
11° W GORIZONT 4 (STATSIONAR 11) USSR
14° W GORIZONT 7 (STATSIONAR 4) USSR
15° W MARISAT F1 US Com General (1976)
16.5° W INTELSAT V (1986)
18.5° W INTELSAT V F6 MCS-B
21.5° W INTELSAT IVA F4
45° E RADUGA 13 USSR
35.8° E RADUGA 9 USSR
35° E RADUGA 11 / USSR (1982)
26° E ARABSAT F2 Arab League (1985)
19° E ARABSAT F1 Arab League
15° E AMS 1 & 2 Israel (1986)
14° E NAT SAT 3 Nigeria
03° E TELECOM F3 France (1985)

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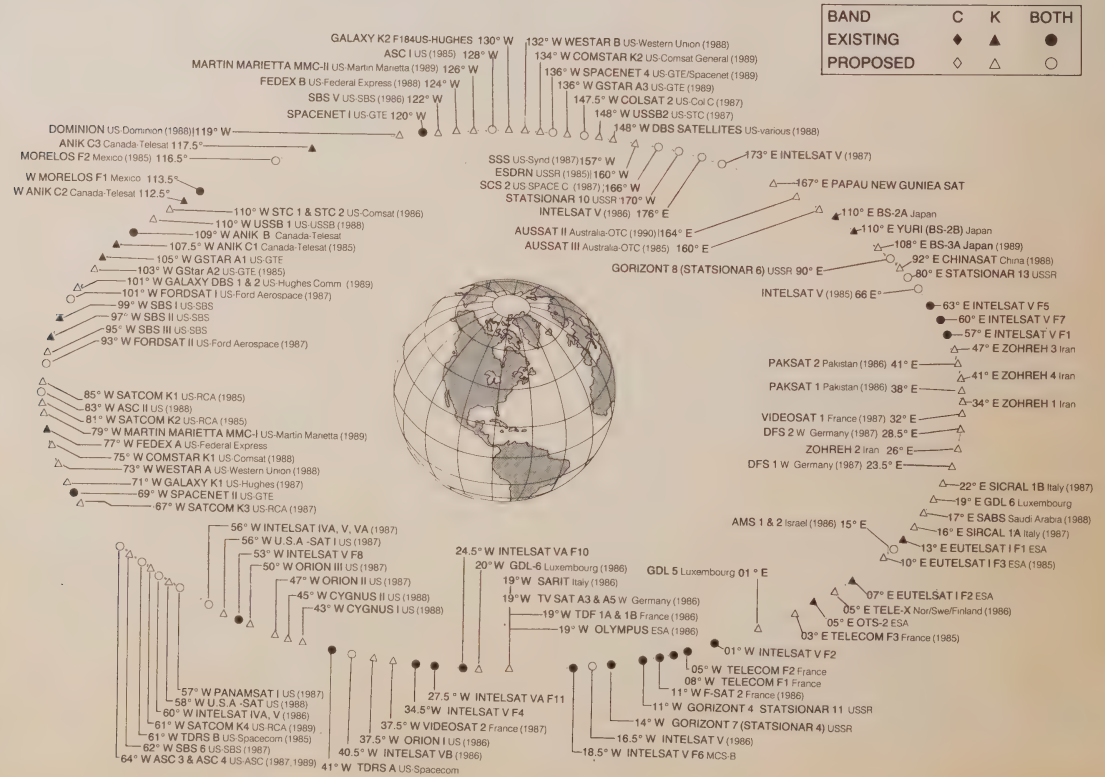
BAND C K BOTH
EXISTING ♦ ▲ ●
PROPOSED ◊ △ ○
GALAXY K2 F184US-HUGHES 130° W
ASC I US (1985) 128° W
MARTIN MARIETTA MMC-II US-Martin Marietta (1989) 126° W
FEDEX B US-Federal Express (1988) 124° W
SBS V US-SBS (1986) 122° W
SPACENET I US-GTE 120° W
DOMINION US-Dominion (1988)119° W
ANIK C3 Canada-Telesat 117.5°
MORELOS F2 Mexico (1985) 116.5°
W MORELOS F1 Mexico 113.5°
W ANIK C2 Canada-Telesat 112.5°
110° W STC 1 & STC 2 US-Comsat (1986)
110° W USSB 1 US-USSB (1988)
109° W ANIK B Canada-Telesat
107.5° W ANIK C1 Canada-Telesat (1985)
105° W GSTAR A1 US-GTE
103° W GStar A2 US-GTE (1985)
101° W GALAXY DBS 1 & 2 US-Hughes Comm (1989)
101° W FORDSAT I US-Ford Aerospace (1987)
99° W SBS I US-SBS
97° W SBS II US-SBS
95° W SBS III US-SBS
93° W FORDSAT II US-Ford Aerospace (1987)
85° W SATCOM K1 US-RCA (1985)
83° W ASC II US (1988)
81° W SATCOM K2 US-RCA (1985)
79° W MARTIN MARIETTA MMC-I US-Martin Manetta (1989)
77° W FEDEX A US-Federal Express
75° W COMSTAR K1 US-Comsat (1988)
73° W WESTAR A US-Western Union (1988)
71° W GALAXY K1 US-Hughes (1987)
69° W SPACENET II US-GTE
67° W SATCOM K3 US-RCA (1987)
64° W ASC 3 & ASC 4 US-ASC (1987,1989)
62° W SBS 6 US-SBS (1987)
61° W TDRS B US-Spacecom (1985)
61° W SATCOM K4 US-RCA (1989)
60° W INTELSAT IVA, V (1986)
58° W U.S.A -SAT US (1988)
57° W PANAMSAT I US (1987)
56° W INTELSAT IVA, V, VA (1987)
56° W U.S.A -SAT I US (1987)
53° W INTELSAT V F8
50° W ORION III US (1987)
47° W ORION II US (1987)
45° W CYGNUS II US (1988)
43° W CYGNUS I US (1988)
41° W TDRS A US-Spacecom
40.5° W INTELSAT VB (1986)
37.5° W ORION I US (1986)
37.5° W VIDEOSAT 2 France (1987)
34.5°W INTELSAT V F4
27.5 ° W INTELSAT VA F11
24.5° W INTELSAT VA F10
20° W GDL-6 Luxembourg (1986)
19°W SARIT Italy (1986)
19°W TV SAT A3 & A5 W Germany (1986)
19° W TDF 1A & 1B France (1986)
19° W OLYMPUS ESA (1986)
18.5° W INTELSAT V F6 MCS-B
16.5° W INTELSAT V (1986)
14° W GORIZONT 7 (STATSIONAR 4) USSR
11° W GORIZONT 4 STATSIONAR 11 USSR
11° W F-SAT 2 France (1986)
08° W TELECOM F1 France
05° W TELECOM F2 France
01° W INTELSAT V F2
GDL 5 Luxembourg 01 ° E
03° E TELECOM F3 France (1985)
05° E OTS-2 ESA
05° E TELE-X Nor/Swe/Finland (1986)
07° E EUTELSAT I F2 ESA
10° E EUTELSAT I F3 ESA (1985)
13° E EUTELSAT I F1 ESA
16° E SIRCAL 1A Italy (1987)
17° E SABS Saudi Arabia (1988)
19° E GDL 6 Luxembourg
22° E SICRAL 1B Italy (1987)
AMS 1 & 2 Israel (1986) 15° E
ZOHREH 2 Iran 26° E
DFS 1 W Germany (1987) 23.5° E
VIDEOSAT 1 France (1987) 32° E
DFS 2 W Germany (1987) 28.5° E
PAKSAT 2 Pakistan (1986) 41° E
PAKSAT 1 Pakistan (1986) 38° E
41° E ZOHREH 4 Iran
34° E ZOHREH 1 Iran
47° E ZOHREH 3 Iran
57° E INTELSAT V F1
60° E INTELSAT V F7
63° E INTELSAT V F5
INTELSAT V (1985) 66 E°
80° E STATSIONAR 13 USSR
92° E CHINASAT China (1988)
108° E BS-3A Japan (1989)
110° E YURI (BS-2B) Japan
110° E BS-2A Japan
GORIZONT 8 (STATSIONAR 6) USSR 90° E
AUSSAT III Australia-OTC (1985) 160° E
AUSSAT II Australia-OTC (1990)164° E
STATSIONAR 10 USSR 170° W
INTELSAT V (1986) 176° E
SCS 2 US-SPACE C (1987) 166° W
ESDRN USSR (1985)| 160° W
SSS US-Synd (1987)157° W
167° E PAPAU NEW GUNIEA SAT
173° E INTELSAT V (1987)
148° W DBS SATELLITES US-various (1988)
148° W USSB2 US-STC (1987)
147.5° W COLSAT 2 US-Col C (1987)
136° W GSTAR A3 US-GTE (1989)
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SHOW DATES

September

Aug. 8 – Sept. 13 **Space WARC**—Planning of space services in geostationary orbit, Geneva, Switzerland.

10 **U.S. Department of Commerce TETAC Meeting**—Industry meeting on switching, and single- and multi-channel transmission equipment exporting, Washington, D.C.

10 – 12 **CaribeCom**—Caribbean telecommunications show, San Juan, Puerto Rico.

17 – 19 **International Telecommunications Users Conference**—Munich, West Germany.

21 – 24 **INTELEVENT '85**—International telecommunications conference, Hotel Montfleury, Cannes, France..

24 **U.S. Department of Commerce TETAC Meeting**—Industry meeting on RF communications equipment exporting, Washington, D.C.

October

2 – 4 **Hong Kong Electronics Fair**—Hong Kong.

15 – 17 **Satellite Communications Users Conference**—New Orleans, Louisiana, U.S.A.

18 – 23 **16th Korea Electronics Show**—Consumer and industrial electronics exhibition including communications and broadcast equipment, test and measuring hardware, components and parts, and related equipment, Seoul, Korea.

22 **U.S. Department of Commerce TETAC Meeting**—Industry meeting on fiber-optic equipment exporting, Washington, D.C.

26 – 28 **Mobile Communications Show and Conference**—Washington, D.C.

28 – 30 **Cellular Communications '85**—Conference and exhibition, New York, U.S.A.

28 – 31 **International Telemetering Conference**—Las Vegas, Nevada, U.S.A.

29 – 31 **Videotex International**—Conference and exhibition, RAI Centre, Amsterdam, The Netherlands.

Japan Electronics Show—Osaka, Japan.

Taiwan Electronics Show—Taipei, Taiwan.

December

2 – 5 **Globecom '85**—World telecommunications conference, New Orleans, Louisiana, U.S.A.

3 – 4 **Satellite Communications**—Conference held in Tara Hotel, London, England.

3 – 4 **Cellular Communications International**—Conference and exhibition, Wembly Center, London, England.

3 – 5 **Computer Communications '85**—Conference and exhibition, Singapore.

January 1986

12 – 15 **PTC '86**—Eighth annual forum of the Pacific Telecommunications Council, Honolulu, Hawaii.

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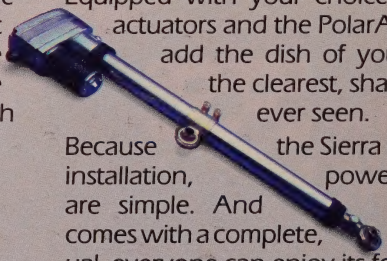

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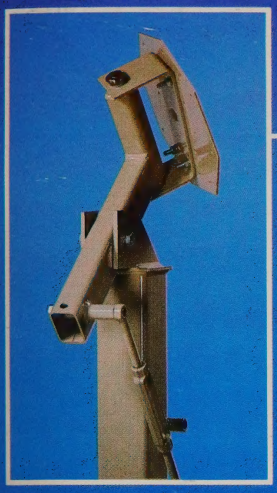

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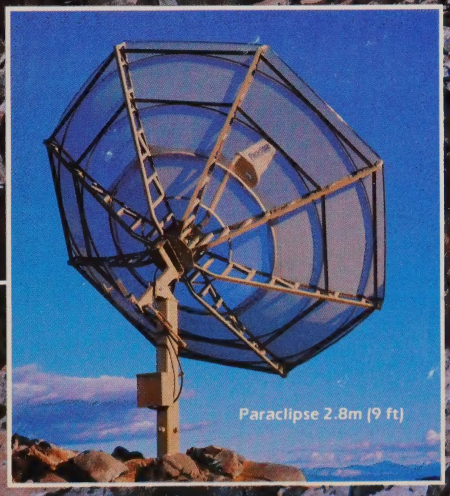

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Mark Fator photographer

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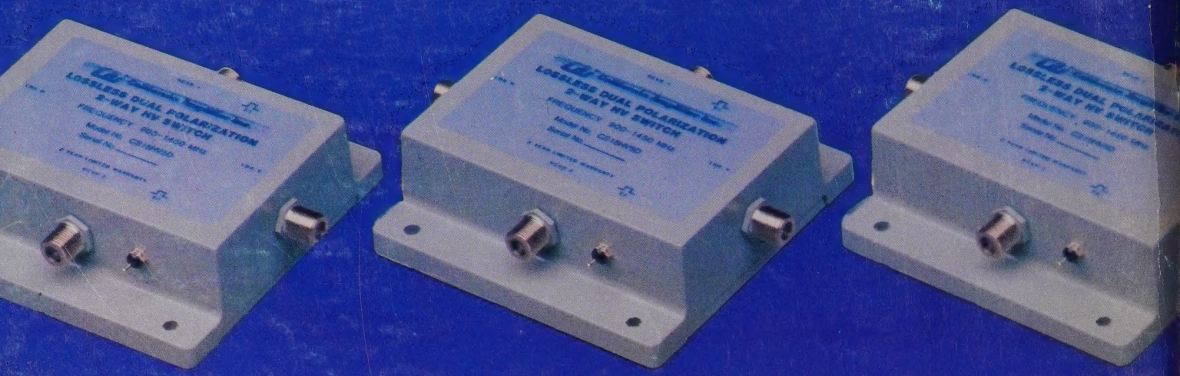

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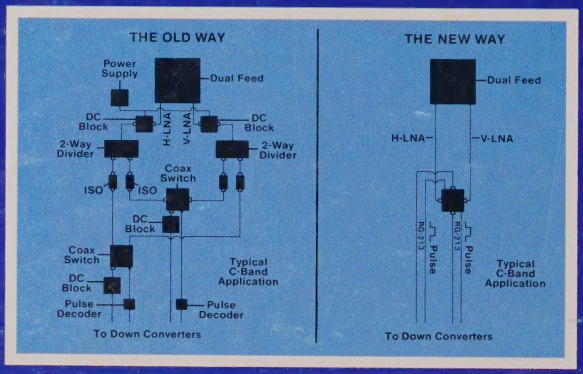

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